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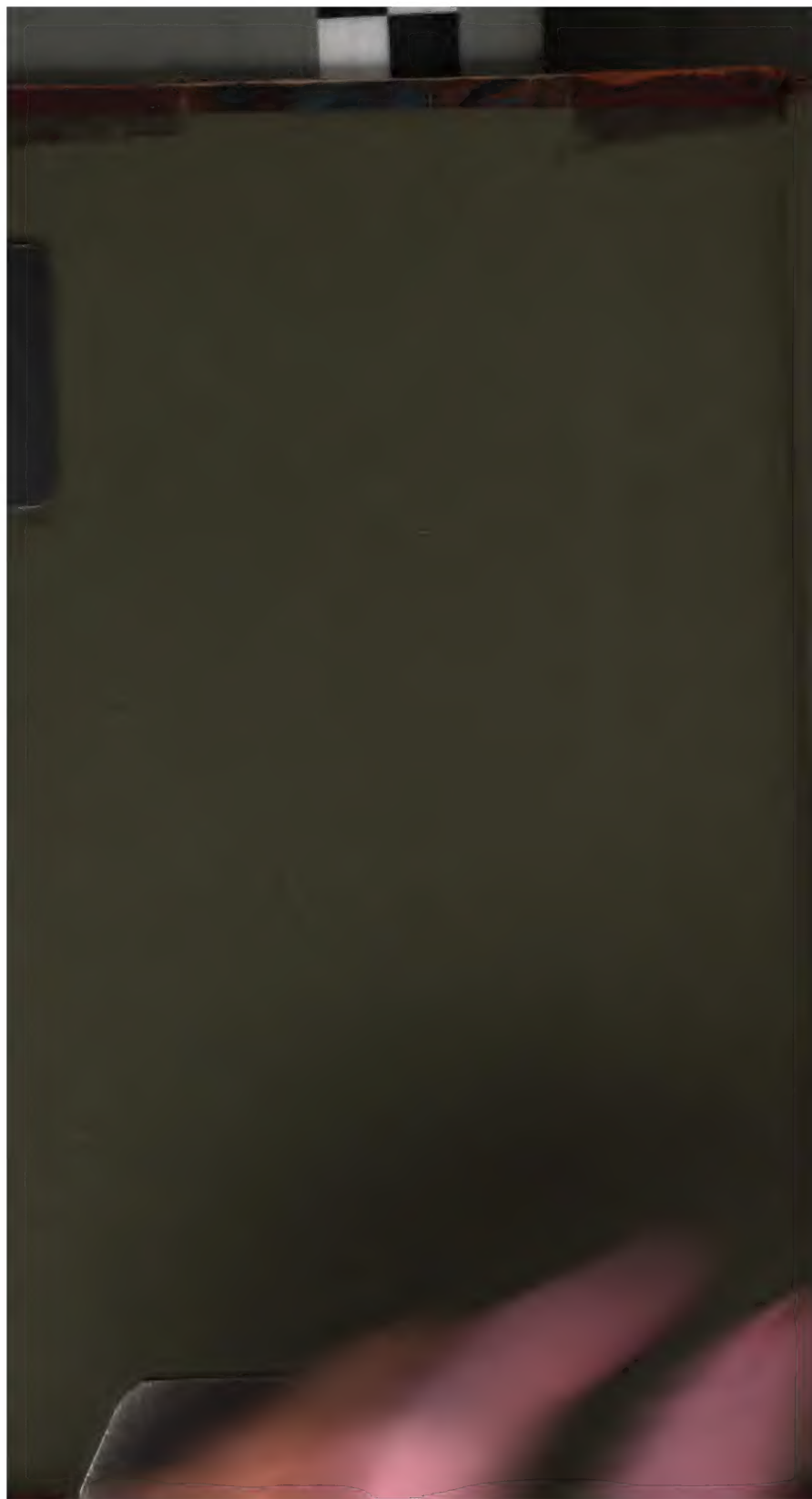
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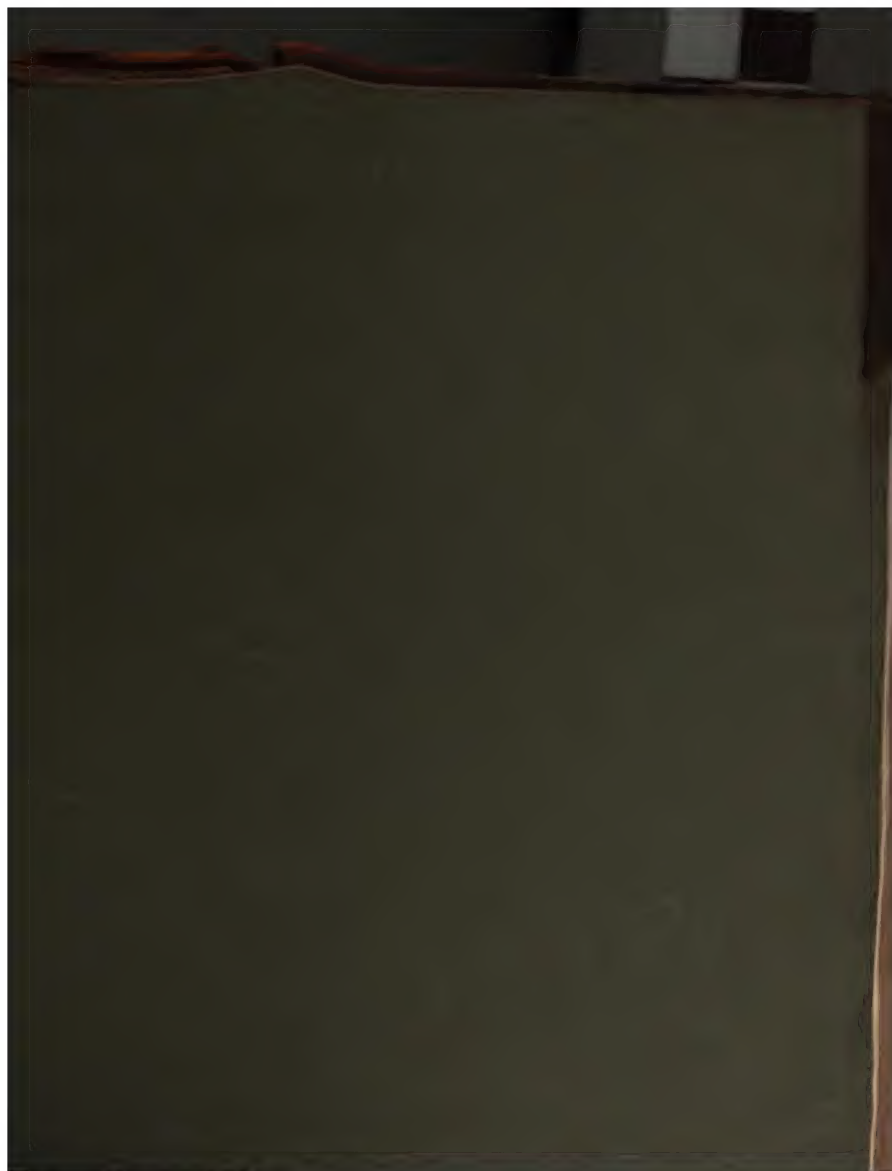
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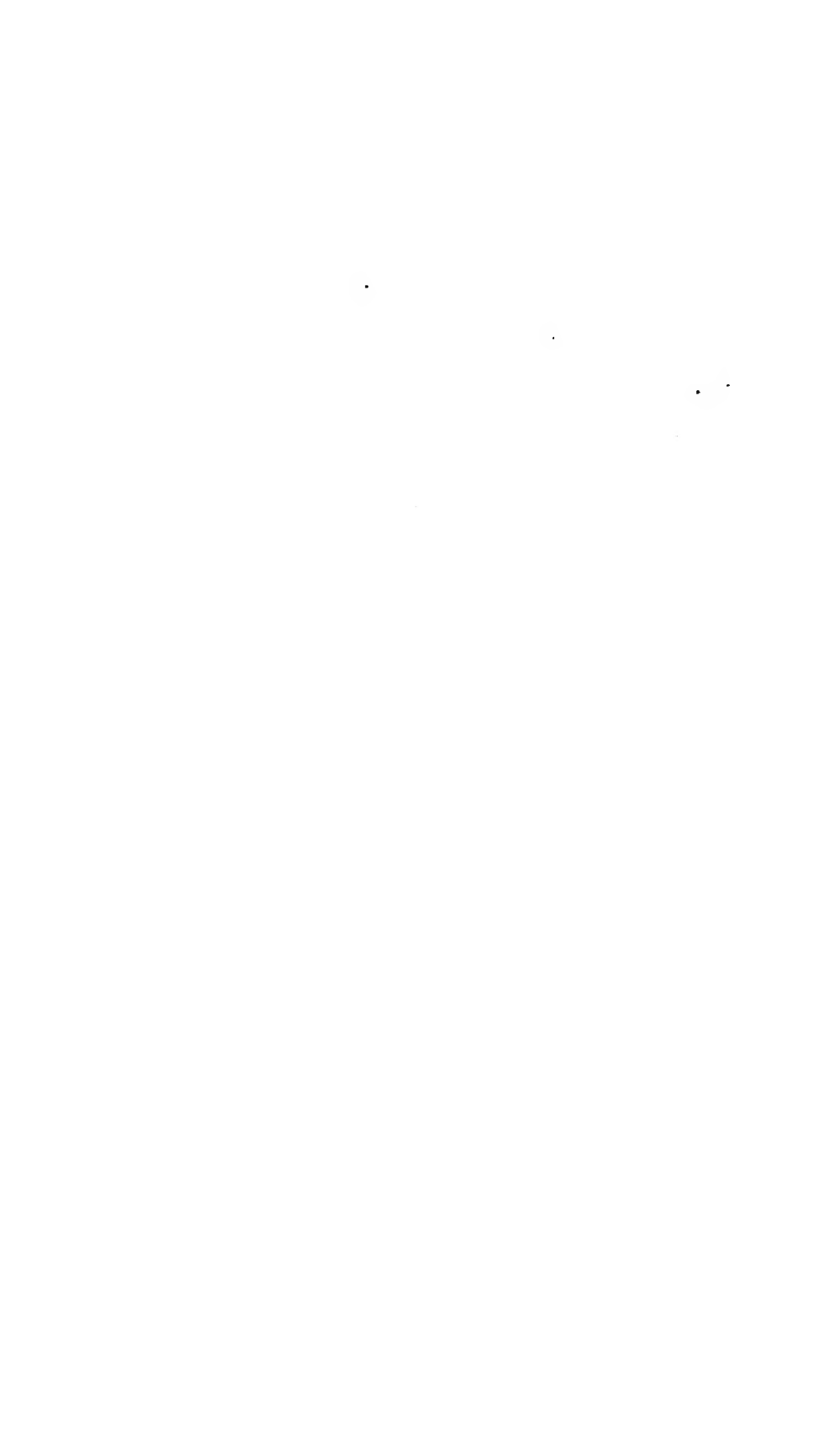




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THE
GENTLEMAN'S MAGAZINE.

JULY 1882.

GARIBALDI.

THOSE to whom he assigned the duty betrayed their trust in not seeing that all which was left of Giuseppe Garibaldi, after the feeble breath had parted from the feeble body, was reduced to a small heap of ashes, and lodged, as he had bidden, in a secluded spot in the island home he loved. Rome may well be eager to hold the grave of the man who helped so much to give fresh life to Italy; and if a pompous tomb, adorned by princes and blessed by priests, is set up in the world's show-place, thousands will go thither every year to gaze and gape at it. But it would have been far better had his dead body been dealt with after the manner of the ancient Romans, whom in some aspects he so much resembled, and its purified relics modestly enshrined in Caprera, there to be visited by fewer but only reverent pilgrims.

Garibaldi's heroism was of the old-world type, though all the good it did was done in the service of society in its latest developments.

Garibaldi, Mazzini, Cavour: these, named in the order of their birth, were the three men to whom Italy owes most for its recovery, as yet but partial, from the political and social degradation in which it had lain for centuries before they performed their several parts in converting it into a new nation. In what order they should be named according to their merits is a question that will always be answered diversely by different critics. In the statesman's view Cavour stands first. He alone, of the three, knew how to weigh and balance political forces, how to temporise, and to follow rules of expediency. Whatever reason there may have been for the Mazzinians' and the Garibaldians' condemnation of his tactics, however inferior his ideal may have been to theirs, and however justly

they may have reproached him for thwarting and baulking them, few will now deny that the objects they aimed at would have had much less chance of being realised, even as far as they are at present, but for the restraining influences that he exerted. As a theorist—a vague dreamer, or a wise prophet—Mazzini undoubtedly takes precedence of the other two. It was in his fertile brain that the scheme of a new Italy took shape, and expanded into a stupendous project for the regeneration of all mankind. Garibaldi was neither statesman nor theorist; but he was a soldier, and a captain of soldiers, able to endow all his followers with his own courage, to metamorphose peasants into warriors, to turn wisps of straw into rods of iron for the special tasks he had to perform. Without him, or such a one as him, neither Mazzini nor Cavour could have done much for Italy; and, if he was not the intellectual peer of either, it is not strange that, by the good work done by his brave hand and the brave heart which guided it, he won the highest place in popular esteem, and that when, on the 3rd of June, at the ripe age of seventy-five, he succumbed to the ravages of painful disease, engendered by his wounds and the hardships of his military exploits, not Italy alone but all the world mourned over his death. It was the death of the most memorable soldier, and one of the most memorable patriots, whom other centuries besides this one have known.

The pages of romance are uneventful in comparison with the records of Garibaldi's life. Born in 1807 at Nice, where his father owned or navigated a small coasting vessel, he was destined by his pious mother for the priesthood, and his quick wit enabled him in desultory ways to acquire more learning than he was afterwards credited with. But his preference was for the sea, and as soon as he was his own master he went on longer voyages than were before permitted to him. Some of those voyages, especially to the Black Sea and in Greek, Turkish, and Russian waters, were sufficiently perilous, and he might have risen to be a prosperous master mariner had he not come under the influence of Mazzini, his junior by two years, but much ahead of him in patriotic aspirations and schemings. Garibaldi never was a schemer, and he adopted only too readily the aspirations of any one who could gain his ear. It is not strange that he listened to Mazzini's eloquent talk, read his fascinating articles in the proscribed journals, and quickly became one of the most eager and active promoters of the Young-Italy cause. In the intervals of his trade, and using his skill as a seaman in the interests of the revolutionary movement, he was one of the most daring of the *Mazzinian conspirators*, until in 1836 he was condemned to

death for participation in an attempt to blow up some barracks at Genoa. He was condemned, but not captured, and finding himself an outlaw in Marseilles he resumed his life as a sailor. That life, however, had grown too quiet for him, and, one of his voyages being to Brazil, he there, in common with some other Italian refugees, took part in the struggles of the South American revolutionists against their tyrannical masters. Ten years or more of his life were occupied in wonderful adventures on land and sea, the story of which reads more like a narrative of the sixteenth century, or a myth of far earlier times, than an authentic history of facts that happened forty years ago.

Hard words have been used, and not unreasonably, about the share, apart from its exhibitions of personal valour and endurance, which Garibaldi took in the republican insurrections and wars of Rio Grande do Sul and Monte Video, between 1837 and 1847. There is some excuse for the taunt that it was by privateering, filibustering, and the like, that he prepared himself for the equally lawless proceedings in which he afterwards indulged at home. But let justice be done to him. By nature he was a fighting man, always anxious to achieve as soon and as completely as he could, by daring use of the weapons at his command, the objects which seemed to him worth achieving. For the Mazzinian propaganda, during its first decade, he would have done anything, regardless of risk and toil, looking for his only reward in the advancement of the social and political reformation that he had at heart. But his own outlawry in 1836 was an incident in such violent suppression of the Mazzinian propaganda by Charles Albert that its boldest champions despaired of its immediate revival. Garibaldi felt that at that time he could do nothing better for his country than go back to his sailing, and sailing no longer satisfied him. "What most troubles me," he wrote to a friend soon after his arrival in Brazil, "is the knowledge that I am doing nothing to help on our cause. I am tired of dragging on an existence so useless to our country while I am forced to give all my energies to this paltry trade." As he could not serve Italian republicanism, he found relief in serving South American republicanism, and if the "cause" he now took up was less noble and profitable than that of which Mazzini was the prophet, he at any rate devoted himself to it with honesty of purpose and enthusiastic generosity, in their way as remarkable as were his indomitable courage and skill in conducting the peculiar sort of warfare in which he was engaged. When in 1846 the Monte Videans forced him to assume the title of *general*, and pressed on him and his comrades a grant of

land, he unwillingly adopted the title, but refused the more substantial reward. "We Italians of Monte Video," he declared, "took up arms in the cause of liberty alone, and not for any gain or honour to ourselves." At a moment when his family was in such dire poverty that he could not altogether refuse a gift of £20 from the Monte Videan Minister of War, he accepted half of the amount on condition that the other half should be handed to the starving widow of one of his followers.

The chance or fate that caused Garibaldi to find his chief occupation during the long years of his exile from Italy in irregular warfare was of excellent service in fitting him for the more important work that fell to him after his return to Europe. His natural aptitude for this sort of warfare was by practice brought to such perfection that he was without a rival in it. With Napoleon Bonaparte, or Moltke, or any other of a hundred famous manipulators of huge mechanical battalions, he is not to be compared; but in the strategy by which small forces of living men, more than making up by implicit faith in him for any lack of intelligence in themselves, can be directed, he was unequalled. Into a company of a few hundred he could infuse so much of his own impetuous courage and readiness in mastering all obstacles that they were strong enough to face and baffle as many thousands, and sometimes make tens of thousands tremble and slink away at the report of their advent. Some of his lieutenants in Italy, and not a few of the rank and file of his followers in the crusade for Italian unity, were men whom he had gathered round him and led to victory during his South American adventures. And foremost among all his recruits and assistants was Anita, the heroic wife—also, as he said, "amiable in domestic life"—to whom he became united in Rio Grande, and who attended him through every danger until her death in 1849.

Thus all that happened to Garibaldi during the first forty years of his life was but schooling for the real business that he had to perform during the next twelve years. Mazzini had been plotting and preaching, not quite in vain, from his exile in Paris and London, while Garibaldi was fighting in South America; and the difference between the two men appeared in 1847, when, Mazzini holding aloof with a well-grounded distrust from the liberal measures of the new pope Pio Nono, encouraged Garibaldi to offer his services in aid of the pontiff's proposed reforms. He and his friend Anzani wrote a letter to Pio Nono, pointing to their exploits in Monte Video as "proofs of their courage and resignation," and adding, "If to-day our arms, *which have been thus exercised in fighting, are acceptable to your*

holiness, we shall devote them more willingly than ever to the service of one who has done so much for our country and the Church." It was just as well that Pio Nono did not accept this invitation, and also that, when Garibaldi, having with difficulty raised enough money to pay for the passage home of the little company of seventy or eighty Italians who were eager to accompany him, reached Italy in the summer of 1848, Charles Albert in like manner paid no heed to his offer to take service in the Sardinian army. Free from the dictation of both king and pope, he was bound to nothing but his conscience and his duty as a patriot, and left free to work out in his own way his famous share in the liberation of Italy.

He began it, as was right, by renewing his old alliance with Mazzini. That the alliance did not now imply so strong a sympathy between the two men as probably existed when they were associated in their youth is clear from the readiness shown by Garibaldi to serve under either Pio Nono or Charles Albert. Mazzini would not have taken such service, even if thereby he could have materially helped on the Italian cause. The utmost that Mazzini would do was to stand jealously aside while the pope and the king made their feeble attempts to effect a few reforms and to drive the foreigners out of the country, waiting for the time when he could insist on the king and his courtiers, the pope and his ecclesiastics, being also driven out. Garibaldi, though liking none of them, was more tolerant of kings and courtiers, popes and ecclesiastics. He troubled himself less about internal reforms than about securing Italy for the Italians, and to advance that object he was willing to waive any but the most fundamental opinions that he held in favour of political and religious liberty. Hence, in part, the differences that afterwards arose between him and Mazzini. But for those differences, thanks to the failure of his overtures to the pope and the king in the autumn of 1847 and the summer of 1848, there was no occasion when he appeared on the scene.

At that moment Charles Albert was failing in his unskilful attempts to take advantage of the insurrectionary movements throughout the Austrian dominions in Italy. His conversion of his little kingdom into a "constitutional monarchy," in February 1848, had gladdened not only his own subjects but all the Italians who looked to him to deliver them from foreign oppression; but public confidence in him was declining even before he found himself unable to cope with the Austrian forces.

Milan especially, which had begun the insurrection by expelling its tyrants in March, and where Mazzini's influence was strongest, would

have nothing to do with Charles Albert. It was to Milan that Garibaldi betook himself after his offer to serve under the king had been rejected in July, and there, in the course of a few days, he collected a body of 3,000 volunteers, with which to carry on the war on independent lines. That force would have been multiplied many times had the struggle been prolonged. For such assistance, however, not to his own cause but to the cause of Italy, Charles Albert was not grateful, and, his own troops having been routed by Radetzky, he made the shameful peace of August the 9th, by which the liberation of Italy was delayed for more than ten years. Garibaldi, hurrying up from Bergamo for the relief of Milan, was within a day's march of the city when the armistice was signed. There was nothing left for him but to withdraw to Switzerland, and, after a few straggling but daring engagements with the Austrians near Lago Maggiore, to disband the little army which he had had no time to organise, and which a dangerous attack of fever at length prevented him from even leading to battle.

Garibaldi's first effort to serve his country was thus apparently a failure. In reality, however, it was of immense service to the cause he had at heart. It made him famous throughout Italy as a great soldier, a man who, when the time was ripe for a national upheaval, might be trusted to see that the business was properly done. It emphasised Mazzini's declaration that "the royal war was at an end, and that of the people to begin." Proof alike of the Italians' appreciation of Garibaldi's soldiership, and of Charles Albert's desire, if possible, to use the best means in his power to prevent the prophecy of Mazzini from being fulfilled, was in the offer now made by the king, who had formerly scouted his services, that he should take high rank in the Sardinian army. That offer was, of course, indignantly rejected. To Charles Albert's son, Victor Emmanuel, Garibaldi could hereafter show so much allegiance as was for the benefit of his country; but with Charles Albert himself, the betrayer of Italian independence, he could make no terms. Garibaldi had very quickly discovered the treachery of the king with the intention of serving whom he had crossed the Atlantic. He had also discovered the treachery of the pope whom he had also offered to serve, Pio Nono having by this time entirely repudiated his liberal professions. It is noteworthy, however, that the brilliant failure—in so far as it was a failure—which closed the first period of his warfare for Italy resulted from a direct attack on the authority of the pontiff whom less than two years before he had proposed to help in his work for "*the country and the Church.*"

The revolutionists were in no mood to submit quietly to the re-establishment of Austrian tyranny over nearly all of the old ground, to which Charles Albert had agreed. Mazzini went on plotting, and Garibaldi, as soon as he had recovered from his fever, went on working. He was on his road to Venice when the news arrived that Pio Nono had fled from Rome, intending to come back as soon as he could obtain such foreign assistance as would avenge the death of Rossi and make the ancient capital of Italy more than ever a centre of oppression. The duty of the revolutionists was clear, however much the most sanguine of them must have feared that it was a duty too hard to have as happy results as they desired. Garibaldi at once altered his course, and being in Rome on February the 9th, 1849, when the hastily formed constituent assembly met to decide on future action, he was the first to exclaim, "Long live the Republic!"

The story of what followed is well known. Mazzini naturally took the lead in directing the affairs of the new Roman Republic, by no means so long-lived as its promoters wished, and Garibaldi as naturally took the lead in preparing to defend the city against the invaders who were expected to come from Austria and other parts. Against an Austrian attack he might have held his ground; but neither he nor Mazzini had looked for the treachery of Louis Napoleon, acting in the name of the French Republic. Yet even when Oudinot arrived with his great army of skilled troops at the end of April, the success of Garibaldi's first day's fighting with them at the head of his five thousand volunteers might have been followed by a lasting victory had not Mazzini, still believing that the French Republic was stronger and more honest than its president, agreed to an armistice which in the end was the ruin of the Roman Republic. Mazzini's action in that respect may be excused on the ground of his infatuation and incapacity for the responsible position in which he had been suddenly placed as a ruler instead of a schemer. But no excuse can be found for his supersession of Garibaldi as chief military commander by Roselli. Garibaldi had just signally defeated the Neapolitans at Palestrina, whither he had secretly gone out to surprise the advancing enemy, and had thus begun an exploit which he alone could finish. Roselli, indeed, left him to finish it, his own command being only nominal. None the less on that account, however, was the indignity, and its disgracefulness was all the more plainly shown by the temper in which Garibaldi submitted to it. "Some of my friends," he wrote long afterwards, "urged me not to accept a subordinate post under a man who, only *the day before*, was my inferior; but, I confess, these



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In spite of the faulty conduct of the Roman Republic experiment, and of its disastrous ending, this memorable episode really helped on instead of delaying the business that had to be done towards securing independence for Italy. It increased Garibaldi's fame, and he was no less an object of worship to all Italian patriots than he would have been had the results of his exploits been as successful as the exploits themselves were brilliant. It lessened Mazzini's power and influence as a conspirator, without weakening the hold of his sound teachings on the public mind. The Italian nation was thus being educated for the change to be brought about, and fortunately in Cavour it had a statesman well qualified to advance that education and prepare for the change. Cavour, now rising to the highest rank as an European politician, no less than as the chief adviser of Victor Emmanuel, had no sympathy with Mazzini, and would have preferred to build up a new Italy without Garibaldi's aid. But circumstances were stronger than his likings, and even cautious critics must admit that he promoted quite as much as he hindered the adoption of all that was then practicable in Mazzini's theories, and that he made prudent use, if ignobly, of all the service that Garibaldi insisted upon rendering to Italy.

The memory of Garibaldi's exploits in 1848 and 1849 was thus doing good work during the five years in which he himself was absent, chiefly in the United States ; but his influence increased from the time when, in 1854, he returned to his own country, and, making Caprera his home, waited till Cavour and Italy called upon him to render active service on its behalf. What he did during the war of 1859, doing with his irregular forces more to defeat the Austrians than was done by the regular Italian army, is matter of history. The Peace of Villafranca was an approach towards the consummation of his desire to see his country freed from foreign rule, though it was a bitter disappointment to him that, while so much precious territory in other parts was being redeemed by the Italians, his own precious birthplace, Nice, together with Savoy, was surrendered to France. This act of treachery, as he regarded it, for a time alienated him from Cavour. "I have nothing to do with men or political parties," he said. "My country, and nothing but my country, is my object."

Pursuit of that object, in defiance of political parties, soon enabled him to achieve the most triumphant exploit of his life. Mazzini and his emissaries did much to stir up the insurrectionary movement in Sicily and Naples which led to the overthrow of King Bomba. Cavour and his diplomatists also assisted in the business, and rendered efficient aid at last in bringing southern Italy under the



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dominion, and its gates were thrown open for Victor Emmanuel to occupy it once more as the capital of Italy. The Italy of to-day is Cavour's Italy, and Mazzini's Italy is still a dream of the far-off future; but it was through Garibaldi, more than through any other man, that it is Cavour's Italy to-day, and is destined hereafter to enjoy such altogether free institutions, such full developments of political and religious and social rights and liberties as will embody all that was substantial and healthy in Mazzini's dream of a new Italy.

The communistic dreams in which Garibaldi himself indulged during his years of comparative retirement in Caprera were rather hazy and discordant, and some of his utterances on practical as well as theoretical questions were more violent than instructive. If we judge him by any such language, or by his impulsive behaviour in many respects during his later years, however, we shall misjudge him. He was a man of action rather than a man of words, and, though he could make excellent choice and use of words on occasion, it is not by the force and meaning of his words that his greatness can be measured. His actions, too, when age and infirmities weighed upon him, were at times feeble, if not crooked. But what of that? In doing, and doing worthily, all he could to free his country from the domination of foreign tyrants and from priestly thralldom, and in thus helping millions besides his own countrymen to make progress in the ways of liberty, he had rendered enough service to Italy and the world. And it was service for which Italy and the world must be ever and devoutly grateful.

H. R. FOX BOURNE.

THE LAWS OF WAR.

THERE is a story of a writer on Ireland, that, after heading a chapter "The Snakes of Ireland," he proceeded to inform his readers that there were none in that country. That expression, "the laws of war," makes one think of the snakes of Ireland.

Nevertheless, a summary denial of their existence would deprive the annals of the battle-field of one of its most interesting features; for there is surely nothing more surprising to an impartial observer of military manners and customs than to find that even in so just a cause as the defence of your own country limitations should be set to the right of injuring the aggressor in any manner you can.

For instance, what can be more obvious in such a case than that no suffering you can inflict is needless which is most likely permanently to disable your adversary? Yet, by virtue of the International Declaration of St. Petersburg in 1868, you may not use explosive bullets against him, because it is held that they would cause him needless suffering. By the logic of war, what can be clearer than that, if the explosive bullet deals worse wounds, and therefore inflicts death more readily, than the chassépôt or mitrail-leuse, it should be used? or else that other destructive agencies should also be excluded from the rules of the game—which might end in putting a stop to the game altogether?

Let us recall the history of the explosive bullet, for its prohibition is a straw to clutch at in these days of military revival. Like the plague, and perhaps gunpowder, it had an Eastern origin. It was used originally in India against elephants and tigers. In 1863 it was introduced into the Russian army, and subsequently into other European armies, for use against ammunition-waggon. But it was not till 1867 that a slight modification in its make rendered it available for the destruction of mankind. The world owes it to the humanity of the Russian Minister of War, General Milutine, that at this point a pause was made; and the Czar, Alexander II., responding to the scruples of his minister, the result was the famous Declaration, signed in 1868 by all the chief Powers (save the United States), *mutually foregoing in their future wars by land or sea the*

use of projectiles weighing less than 400 grammes (to save their use for artillery), either explosive or filled with inflammable substances. The Court of Berlin wished at the time for some other destructive agencies to be equally excluded, but the English Government was afraid to go further; as if requiring breathing time after so immense an effort to diminish human suffering, before proceeding in so perilous a direction.

The Declaration of St. Petersburg, inasmuch as it is capable of indefinite expansion, is a somewhat awkward precedent for those who in their hearts love war and shield its continuance with apologetic platitudes. How, they ask, can you enforce agreements between nations? But this argument begins to totter when we remember that there is absolutely no superior power or tribunal in existence which can enforce the observance of the St. Petersburg Declaration beyond the conscience of the signatory powers. It follows, therefore, that if international agreements are of value, there is no need to stop short at this or that bullet: which makes the arbitration tribunal loom in the distance perceptibly nearer than it did before.

At first sight, this agreement excluding the use of explosive bullets would seem to favour the theory of those who see in every increase in the peril of war the best hope of its ultimate cessation. A famous American statesman is reported to have said, and actually to have appealed to the invention of gunpowder in support of his statement, that every discovery in the art of war has, from this point of view, a life-saving and peace-promoting influence.¹ But it is difficult to conceive a greater delusion. The whole history of war is against it; for what has that history been but the steady increase of the pains and perils of war, as more effective weapons of destruction have succeeded one another? The delusion cannot be better dispelled than by consideration of the following facts:—

It has often seemed as if humanity were about to get the better of the logical tendency of the military art. The Lateran Council of 1139 (a sort of European congress in its day) not only condemned Arnold of Brescia to be burnt for heresy, but anathematised the cross-bow for its inhumanity. It forbade its use in Christian warfare as alike hateful to God and destructive of mankind.² Several brave princes disdained to employ cross-bow shooters, and Innocent III.

¹ Halleck's *International Law*, ii. 21. Yet within three weeks of the beginning of the war with France 60,000 Prussians were *hors de combat*.

² "Artem illam mortiferam et Deo odibilem balistariorum et sagittariorum adversus Christianos et Catholicos exerceri de cætero sub anathemate prohibemus."

confirmed the prohibition on the ground that it was not fair to inflict on an enemy more than the least possible injury.¹ The long-bow consequently came into greater use. But Richard I., in spite of Popes or Councils or Chivalry, revived the use of the cross-bow in Europe; nor, though his death by one himself was regarded as a judgment from Heaven, did its use from that time decline till the musket took its place.

Cannons and bombs were at first called diabolical, because they suggested the malice of the enemy of mankind, or serpentines, because they seemed worse than the poison of serpents.² And torpedoes, now used without scruple, were called infamous and infernal when, under the name of American Turtles, they were first tried by the American Colonies against the ships of their mother country.

In the sixteenth century, that knight "without fear or reproach" the Chevalier Bayard, ordered all musketeers who fell into his hands to be slain without mercy, because he held the introduction of fire-arms to be an unfair innovation on the rules of lawful war. So red-hot shot (or balls made red-hot before insertion in the cannon) were at first objected to, or only considered fair for purposes of defence, not of attack. Yet, what do we find?—that Louis XIV. fired some 12,000 of them into Brussels in 1694; that the Austrians fired them into Lille in 1792; and that the English batteries fired them at the ships in Sebastopol harbour, which formed part of the Russian defences. Chain-shot and bar-shot were also disapproved of at first, or excluded from use by conventions applying only to particular wars; now there exists no agreement precluding their use, for they soon became common in battles at sea.

The invention of the bayonet supplies another illustration. The accounts of its origin are little better than legends: that it was invented so long ago as 1323 by the women of Bayonne in defence of the ramparts of that city against the English; or by Puséygur, of Bayonne, about 1650; or borrowed by the Dutch from the natives of Madagascar; or connected with a place called the Redoute de la Baionnette in the Eastern Pyrenees, where the Basques, having exhausted their ammunition against the Spaniards, are said to have inserted their knives into the muzzles of their guns. But it is certain that as soon as the idea was perfected by fixing the blade by rings outside the muzzle (in the latter quarter of the seventeenth

¹ Fauchet's *Origines des Chevaliers*, &c. &c., ii. 56; Grose's *Military Antiquities*, i. 142; and Demmin's *Encyclopédie d'Armurerie*, 57, 496.

² Fauchet, ii. 57. "Lequel engin, pour le mal qu'il faisait (pire que le venin des serpens), fut nommé serpentine," &c.

century), battles became more murderous than ever, though the destruction of infantry by cavalry was diminished. The battle of Neerwinden in 1693, in which the French general, Luxembourg, defeated the Prince of Orange, is said to have been the first battle that was decided by a charge with a bayonet, and the losses were enormous on both sides.¹

History, in fact, is full of such cases, in which the victory has uniformly lain ultimately with the legitimacy of the weapon or method that was at first rejected. For the moment, the law of nations forbids the use of certain methods of destruction, such as bullets filled with glass or nails, or chemical compounds like kakodyl, which could convert in a moment the atmosphere round an army into one of deadly poison;² yet we have nothing like certainty—we have not even historical probability—that these forbidden means, or worse means, will not be resorted to in the wars of the future, or that reluctance to meet such forms of death will in the least degree affect either their frequency or their duration.

It is easy to explain this law of history. The soldier's courage, as he faces the mitrailleuse with the same indifference that he would face snow-balls or bread-pellets, is a miracle that is explained by discipline; for, whether the soldier be hired or coerced to face death, it is all one to him against what kind of bullet he rushes, so long as discipline remains—as Helvetius the French philosopher once defined it, the art of making soldiers more afraid of their own officers than of their enemy.³ To Clearchus, the Lacedæmonian, is attributed the saying that a soldier should always fear his own general more than the enemy: a mental state not difficult to ensure in every system of military mechanism. Whatever form of death be in front of a man, it is less certain than that in his rear.

For the nearest approach to a statement of what the laws of war in our own time really are, we must turn to the Brussels Conference, which met in 1874 at the summons of the same great Russian to whom the world owes the St. Petersburg Declaration, and which constituted a genuine attempt to mitigate the evils of war by an international agreement and definition of their limits. The idea of such a plan was originally suggested by the Instructions published in 1863 by President Lincoln for the government of the armies of the United States in the civil war.⁴ The project for such an inter-

¹ Dyer, *Modern Europe*, iii. 158.

² Scoffern's *Projectile Weapons*, &c., 66.

³ *Sur l'Esprit*, i. 562.

⁴ These Instructions are published in Halleck's *International Law*, ii. 36-51; and at the end of Edwards' *Germans in France*.

national agreement, originally submitted by the Russian Government for discussion, was very much modified before even a compromise of opinion could be arrived at on the several points it contained. And the project so modified, as a preliminary basis for future agreement, owing to the timid refusal of the English Government to take further part in the matter, never, unfortunately, reached its final stage of a definite code ;¹ but it remains nevertheless the most authoritative utterance extant of the laws generally thought to be binding in modern warfare on the practices and passions of the combatants. The following articles from the project as finally modified are undoubtedly the most important :—

Art. 12. The laws of war do not allow to belligerents an unlimited power as to the choice of means of injuring the enemy.

Art. 13. According to this principle are strictly forbidden—

- a. The use of poison or poisoned weapons.
- b. Murder by treachery of individuals belonging to the hostile nation or army.
- c. Murder of an antagonist who, having laid down his arms, or having no longer the means of defending himself, has surrendered at discretion.
- d. The declaration that no quarter will be given.
- e. The use of arms, projectiles, or substances which may cause unnecessary suffering, as well as of those prohibited by the Declaration of St. Petersburg in 1868.
- f. Abuse of the flag of truce, the national flag, or the military insignia or uniform of the enemy, as well as the distinctive badges of the Geneva Convention.
- g. All destruction or seizure of the enemy's property which is not imperatively required by the necessity of war.

Art. 15. Fortified places are alone liable to be besieged. Towns, agglomerations of houses or villages which are open or undefended, cannot be attacked or bombarded.

Art. 17 All necessary steps should be taken to spare as far as possible buildings devoted to religion, arts, sciences, and charity, hospitals and places where sick and wounded are collected, on condition that they are not used at the same time for military purposes.

Art. 18. A town taken by storm shall not be given up to the victorious troops for plunder.

¹ "It would have been desirable," said the Russian Government, "that the voice of a great nation like England should have been heard in an inquiry of which the object would appear to have met with its sympathies."

Art. 23. Prisoners of war . . . should be treated with humanity. . . . All their personal effects except their arms are to be considered their own property.

Arts. 36, 37. The population of an occupied territory cannot be compelled to take part in military operations against their own country, nor to swear allegiance to the enemy's power.

Art. 38. The honour and rights of the family, the life and property of individuals, as well as their religious convictions and the exercise of their religion, should be respected.

Private property cannot be confiscated.

Art. 39. Pillage is expressly forbidden.

There is at first sight a pleasing ring of humanity in all this, though, as yet, it only represents the better military spirit, which is always far in advance of actual military practice. In the monotonous history of war there are always commanders who wage it with less ferocity than others, and writers who plead for the mitigation of its cruelties. As in modern history a Marlborough, a Wellington, or a Villars forms a pleasant contrast to a Feuquières, a Belleisle, or a Blücher, so in ancient history a Marcellus or a Lucullus helps us to forget a Marius or an Alexander; and the sentiments of a Cicero or Tacitus were as far in advance of their time as those of a Grotius or Vattel were of theirs. According to the accident of the existence of such men, the laws of war fluctuate from age to age; but, the question arises, do they become perceptibly milder? do they ever permanently improve?

It will be said that they do, because it will be said that they have; and that the annals of modern wars present nothing to resemble the atrocities that may be collected from ancient or mediæval history. But as the warfare of the sixteenth and seventeenth centuries was, if possible, more barbarous than that of the two preceding centuries, it is not impossible that the present direction is actually a downward one, and that is a consideration which is well deserving of dispassionate and careful inquiry.

Poison is forbidden in war, says the Berlin Conference; but so it always was, even in the Institutes of Menu, and with perhaps less difference of opinion in ancient than in modern times. Grotius and Vattel and most of their followers disallow it, but two publicists of grave authority defend it, Bynkershoek and Wolff. The latter published his "*Jus Gentium*" as late as 1749, and his argument is worth translating, since it can only be met by arguments which equally apply to other modes of military slaughter. "Naturally it is lawful to kill an enemy by poison; for as long as he is our enemy,

he resists the reparation of our right, so that we may exercise against his person whatever suffices to avert his power from ourselves or our possessions. Therefore it is not unfair to get rid of him. But, since it comes to the same thing whether you get rid of him by the sword or by poison (which is self-evident, because in either case you get rid of him, and he can no longer resist or injure you), it is naturally lawful to kill an enemy by poison." And so, he argues, of poisoned weapons.¹ That poison is not in use in our day we do not therefore owe to our international lawyers, but to the accident of tradition. In Roman history the theory appears to have been unanimous against it. "Such conduct," says the Roman writer Florus of a general who poisoned some springs in order to bring some cities to a speedier surrender, "although it hastened his victory, rendered it infamous, since it was done not only against divine law, but against ancestral customs."² Our statesman Fox refused indignantly to avail himself of an offer to poison Napoleon, but so did the Roman consuls refuse a similar proposal with regard to Pyrrhus; and Tiberius and the Roman senate replied to a plan for poisoning Arminius that the Roman people punished their enemies not by fraud or in secret, but openly and in arms.

The history of bombarding towns affords an instance of something like actual deterioration in the usages of modern warfare. Regular or simple bombardment, that is, of a town indiscriminately and not merely of its fortresses, has now become the established practice. Yet, what did Vattel say in the middle of the last century? "At present we generally content ourselves with battering the ramparts and defences of a place. To destroy a town with bombs and red-hot balls is an extremity to which we do not proceed without cogent reasons." What said Vauban still earlier? "The fire must be directed simply at the defences and batteries of a place . . . and not against the houses." Then let us remember the English bombardment of Copenhagen in 1807, when the cathedral and some 300 houses were destroyed; the German bombardment of Strasburg in 1870, where rifled mortars were used for the first time,³ and the famous library and picture gallery destroyed; and the German bombardment of Paris, about which, strangely enough, even the military conscience of the Germans was struck, so that in the highest circles doubts about the propriety of such a proceeding at one

¹ *Jus Gentium*, art. 877, 878.

² *Florus*, ii. 20.

³ *Edwards' Germans in France*, 164.

time prevailed from a moral no less than from a military point of view.¹

With respect again to sacred or public buildings, warfare tends to become increasingly destructive. It was the rule in Greek warfare to spare sacred buildings; and the Romans frequently spared sacred and other buildings, as Marcellus, for instance, at Syracuse. Yet when the French ravaged the Palatinate in 1689 they not only set fire to the cathedrals, but sacked the tombs of the ancient Emperors at Spiers. Frederick II. destroyed the finest buildings at Dresden and Prague. In 1814 the English forces destroyed the Capitol at Washington, the President's house, and other public buildings;² and in 1815 the Prussian general, Blücher, was with difficulty restrained from blowing up the Bridge of Jena at Paris and the Pillar of Austerlitz. There is always the excuse of reprisals or accident. Yet Vattel had said (in language which but repeated the language of Polybius and Cicero): "We ought to spare those edifices which do honour to human society, and do not contribute to the enemy's strength, such as temples, tombs, public buildings, and all works of remarkable beauty."

Of as little avail has been the same writer's observation that those who tear up vines and cut down fruit trees are to be looked upon as savage. The Fijian islanders were barbarians enough, but even they used as a rule to spare their enemies' fruit trees; so did the ancient Indians; and the Koran forbids the wanton destruction of fruit trees, palm trees, corn, or cattle. Then what shall we think of the armies of Louis XIV. in the Palatinate not only burning castles, country-houses, and villages, but ruthlessly destroying crops, vines, and fruit trees?³ or of the Prussian warrior, Blücher, destroying the ornamental trees at Paris in 1815?

It is said that the Germans refused to let the women and children leave Strasburg before they began to bombard it in 1870.⁴ Yet Vattel himself tells us how Titus, at the siege of Jerusalem, suffered the women and children to depart, and how Henri IV., besieging Paris, had the humanity to let them pass through his lines.

Grotius, after quoting the fact that a decree of the Amphictyons forbade the destruction of any Greek city in war, asserts the existence of a stronger bond between the nations of Christendom than between

¹ This remarkable fact is certified by Mr. Russell, in his *Diary in the Last Great War*, 398, 399.

² See even the *Annual Register*, lvi. 184, for a denunciation of this proceeding.

³ Sismondi's *Hist. des Français*, xxv.

⁴ *Edwards' Germans in France*, 171.

the states of ancient Greece. And then we remember how the Prussians bombarded the Danish town of Sönderborg, and almost utterly destroyed it, though it lay beyond the possibility of their possession ; and we think of Peronne in France reduced to ruins, with the greater part of its fine cathedral, in 1870 ; and of the German shells directed against the French fire engines that endeavoured to save the Strasburg Library from the flames that consumed it ; and we wonder that so great a jurist could have been capable of so grievous a misstatement.

To murder a garrison that had made an obstinate defence, or in order to terrorise others from doing the same, was a right of modern war disputed by Grotius, but admitted by Vattel not to be totally exploded a century later. Yet they both quote cases which prove that to murder enemies who had made a gallant defence was regarded in ancient times as a violation of the rules of war.

To murder enemies who had surrendered was as contrary to Greek or Roman as it ever was to Christian warfare. Tacitus calls it savage ; Arrian speaks of Alexander's slaughter of the Thebans as un-Greek. The general Greek and Roman practice was to allow quarter to an enemy who surrendered, and to redeem or exchange their prisoners.¹ They had indeed, by the laws of war, a right to slay or enslave them, and though both rights were sometimes exercised with great barbarity, the extent to which the former right was exercised has been very much exaggerated. Otherwise, why should Diodorus Siculus, in the century preceding our era, have spoken of mercy to prisoners as the common law (*τὰ κοινὰ νόμιμα*), and of the violation of such law as an act of exceptional barbarity?² It may be fairly doubted whether the French prisoners in the English hulks during the war with Napoleon suffered less than the Athenian prisoners in the mines of Syracuse ; and as to quarter, what of the French volunteers or Franc-tireurs who in 1870 fell into the hands of the Germans, or of the French peasants, who, though levied and armed by the local authorities under the proclamation of Napoleon, were, if taken, put to death by the Allies in 1814?

Some other illustrations will perhaps further persuade us that there is no real progress in war, and that many of the fancied mitigations of it are merely accidental and ephemeral features.

Gustavus Adolphus, in 1627, issued some humane Articles of War, which forbade, among other things, injuries to old men, women, and children. Within a few years the Swedish soldiery, like other

¹ Woolsey's *International Law*, p. 223.

² Cf. *lib. xii. 81, and xiii. 25, 26*; quoted by Grotius, *iii. xi., xiii.*

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Paradise about war (which has done more than anything else to keep that barbarous custom in existence), by representing it as something quite mild and almost refined in modern times. Vattel, the Swiss jurist, set the example. He published his work on the rights of nations two years after the Seven Years' War had begun, and he speaks of the European nations in his time waging their wars "with great moderation and generosity." This was the year before Marshal Belleisle made a desert of Westphalia; and scarcely a day passes in a modern war that does not give the lie to the rules laid down in the ponderous tomes of the international-law writers. It is said that Gustavus Adolphus always had with him in camp a copy of "Grotius," as Alexander is said to have slept over Homer. The improbability of finding a copy of "Grotius" in a modern camp may be taken as an illustration of the neglect that has long since fallen on the restraints with which our publicists have sought to fetter our generals, and of the futility of all such endeavours.

All honour to Grotius for having sought to make warfare a few degrees less atrocious than he found it; but let us not therefore deceive ourselves into an extravagant belief in the efficacy of his labours. Kant, who lived later, and had the same problem to face, cherished no such delusion as to the possibility of humanising warfare, but went straight to the point of trying to stop it altogether; and Kant was in every point the better reasoner. Either would doubtless have regarded the other's reasoning on the subject as utopian; but which with the better reason?

Grotius took the course of first stating what the extreme rights of war were, as proved by precedent and usage, and of then pleading for their mitigation on the ground of religion and humanity. In either case he appealed to precedent, and only set the better against the worse; leaving thereby the rights of war in utter confusion, and quite devoid of any principle of measurement.

Let us take as an illustration of his method the question of the slaughter of women and children. This he began with admitting to be a strict right of war. Profane history supplied him with several instances of such massacres, and so more especially did biblical history. He refrained, he expressly tells us, from adducing the slaying of the women and children of Heshbon by the Hebrews, or the command given to them to deal in the same way with the people of Canaan, for these were the works of God, whose rights over mankind were far greater than those of man over beasts. He preferred, as coming nearer to the practice of his own time, the testimony of that verse in the Psalms which says, "Blessed shall he

be who shall dash thy children against a stone." Subsequently he withdrew this right of war, by reference to the better precedent of ancient times. It does not appear to have occurred to him that the precedents of history, if we go to them for our rules of war, will obviously prove anything, according to the character of the actions we select. Camillus (in Livy) speaks of childhood as inviolable even in stormed cities; the Emperor Severus, on the other hand, ordered his soldiers to put all persons in Britain to the sword indiscriminately, and in his turn appealed to precedent the order, namely, of Agamemnon, that of the Trojans not even children in their mother's womb should be spared from destruction. The children of Israel were forbidden in their wars to cut down fruit-trees; yet when they warred against the Moabites, "they stopped all the wells of water and felled all the good trees." Joshua and David houghed their enemies' horses; but it is not on record that the Greeks did the same. It was only possible in this way to distinguish the better custom from the worse, not the right from the wrong: either being equally justifiable on a mere appeal to historical instances.

The rules of war which prevailed in the time of Grotius—the early time, that is, of the Thirty Years' War—may be briefly summarized from his work as follows. The rights of war extended to *all* persons within the hostile boundaries, the declaration of war being essentially directed against every individual of a belligerent nation. Any person of a hostile nation, therefore, might be slain wherever found provided it were not on neutral territory. Women and children might be lawfully slain (as they were also liable to be in the best days of chivalry); and so might prisoners of war, suppliants for their lives, or those who surrendered unconditionally. It was lawful to assassinate an enemy, provided it involved no violation of a tacit or express agreement; but it was unlawful to use poison in any form, though fountains, if not poisoned, might be made undrinkable. Anything belonging to an enemy might be destroyed: his crops, his houses, his flocks, his trees, even his sacred edifices, or his places of burial.

That these extreme rights of war were literally enforced in the seventeenth century admits of no doubt; nor if any of them have at all been mitigated, can we attribute it so much to the human attempt of Grotius and his followers to set restrictions on the rightful exercise of predominant force, as to the accidental influence of individual commanders. It has been well remarked that the right of non-combatants to be unmolested in war was recognised

by generals before it was ever proclaimed by the publicists.¹ And the same truth applies to many other changes in warfare, which have been oftener the result of a temporary military fashion, or of new ideas of military expediency, than of obedience to Grotius or Vattel. They set themselves to as futile a task as the proverbial impossibility of whitening the negro; with this result—that the destructiveness of war, its crimes, and its cruelties, are something new even to a world that cannot lose the recollection of the sack of Magdeburg in 1631, or the devastation of the Palatinate in 1689.²

The publicists have but recognised and reflected the floating sentiments of their time, without giving us any definite principle by which to separate the permissible from the non-permissible practice in war. We have already seen how much they are at issue on the use of poison. They are equally at issue as to the right of employing assassination; as to the extent of the legitimate use of fraud; as to the right of beginning a war without declaration; as to the limits of the invader's rights of robbery; as to the right of the invaded to rise against his invader; or as to whether individuals so rising are to be treated as prisoners of war or hanged as assassins. Let us consider what they have done for us with regard to the right of using savages for allies, or with regard to the rights of the conqueror over the town he has taken by assault.

The right to use barbarian troops on the Christian battle-field is unanimously denied by all the modern text-writers. Lord Chatham's indignation against England's employment of them against her revolted colonies in America availed as little. Towards the end of the Crimean war Russia prepared to arm some savage races within her empire, and brought Circassians into Hungary in 1848.³ France employed African Turcos both against Austria in 1859 and against Prussia in 1870; and it is within the recollection of the youngest what came of the employment by Turkey of Bashi-Bazouks. Are they likely not to be used in future because Bluntschli, Heffter, or Wheaton prohibits them?

To take a town by assault is the worst danger a soldier can have to face. The theory therefore had a show of reason, that without the reward of unlimited licence he could never be brought to the breach. Tilly is reported to have replied, when he was entreated by some of his officers to check the rapine and bloodshed that has

¹ Bluntschli's *Moderne Völkerrecht*, art. 573.

² For the character of modern war see the account of the Franco-German war in the *Quarterly Review* for April 1871.

³ Halleck, ii. 22.

immortalised the sack of Magdeburg in 1631: "Three hours' plundering is the shortest rule of war. The soldier must have something for his toil and trouble."¹ It is on such occasions, therefore, that war shows itself in its true character, and that M. Girardin's remark, "*La guerre c'est l'assassinat, la guerre c'est le vol,*" reads like a revelation. The scene never varies from age to age; and the storming of Badajoz and San Sebastian by the English forces in the Peninsular War, or of Constantine in Algiers by the French in 1837, teaches us what we may expect to see in Europe when next a town is taken by assault, as Strasburg might have been in 1870. "No age, no nation," says Sir W. Napier, "ever sent forth braver troops to battle than those who stormed Badajoz." (April 1812.) Yet for two days and nights there reigned in its streets, says the same writer, "shameless rapacity, brutal intemperance, savage lust, cruelty, and murder."² And what says he of San Sebastian not a year and a half later? A thunderstorm that broke out "seemed to be a signal from hell for the perpetration of villainy which would have shamed the most ferocious barbarians of antiquity." . . . "The direst, the most revolting cruelty was added to the catalogue of crime; one atrocity . . . staggers the mind by its enormous, incredible, indescribable barbarity."³ If officers lost their lives in trying to prevent such deeds—whose very atrocity, as some one has said, preserves them from our full execration, because it makes it impossible to describe them—is it likely that the gallant soldiers who crowned their bravery with such devilry would have been one whit restrained by the consideration that in refusing quarter, or in murdering, torturing, or mutilating non-combatants, they were acting contrary to the rules of modern warfare?

If, then, we temper theory with practice, and desert our books for the facts of the battle-field (so far as they are ever told in full), we may perhaps lay down the following as the most important laws of modern warfare:

1. You may not use explosive bullets; but you may use conical-shaped ones, which inflict far more mutilation than round ones, and even explosive bullets, if they do not fall below a certain magnitude.
2. You may not poison your enemy, because you thus take from him the chance of self-defence; but you may blow him up with a

¹ Vehse's *Austria*, i. 369. Yet, as usual on such occasions, the excesses were committed in the teeth of Tilly's efforts to oppose them.

"Imperavit Tillius a devictorum cælibus et corporum castimonia abstinere, quod imperium a quibusdam furentibus male servatum annales aliqui fuere conquesti. — Adlzreiter's *Annales Boicæ Gentis*, Part iii. l. 16, c. 38.

² *Battles in the Peninsular War*, 181, 182.

³ *Ibid.* 396.

lougasse or dynamite, from which he is equally incapable of defending himself.

3. You may not poison your enemy's drinking-water ; but you may infect it with dead bodies or otherwise, because that is only equivalent to turning the stream.

4. You may not kill helpless old men, women, or children with the sword or bayonet ; but as much as you please with your Congreve rockets, howitzers, or mortars.

5. You may not make war on the peaceable occupants of a country ; but you may burn their houses if they resist your claims to rob them of their uttermost farthing.

6. You may not refuse quarter to an enemy ; but you may if he be not equipped in a particular outfit.

7. You may not kill your prisoners of war ; but you may order your soldiers not to take any.

8. You may not ask a ransom for your prisoners ; but you may more than cover their cost in the lump sum you exact for the expenses of the war.

9. You may not purposely destroy churches, hospitals, museums, or libraries ; but "military exigencies" will cover your doing so, as they will almost anything else you choose to do in breach of any other restrictions on your conduct.

Such are some of the practical absurdities into which the reasonings of Grotius and his followers have led us. The real dreamers, it appears, have been, not those who, like Henri IV., Sully, St. Pierre, or Kant, have dreamed of a world without wars, but those who have dreamed of wars waged without lawlessness, passion, or crime. On them be thrown back the taunts of utopianism which they have showered so long on the only view of the matter which is really logical and consistent. On them, at least, rests the shadow, and must rest the reproach, of an egregious failure, unless recent wars are of no account and teach no lesson. And if their failure be real and signal, what remains for those who wish for better things, and for some check on deeds that threaten our civilisation, but to turn their backs on the instructors they once trusted ; to light their fires rather than to load their shelves with Grotius, Vattel, and the rest ; and to throw in their lot for the future with the opinion, hitherto despised, though it was Kant's, and the endeavour hitherto discredited, though it was Henry the Great's, Sully's, and Elizabeth's—the opinion, that is, that it were easier to abolish war than to humanize it, and that only in the growth of habits of international confidence lies any possible hope of its ultimate extinction ?

THE PROBLEMS OF DISTRIBUTION AND THEIR SOLUTION.

PART I.

PERSONS whose acquaintance with the methods of biological study cannot be regarded as either extensive or profound, may nevertheless regard themselves as perfectly capable of detailing exactly and succinctly the four chief points involved in the consideration of any living being. The history of an animal or plant, however superficially that history may be viewed, presents a series of problems which it is the business of the biologist to solve. These problems resolve themselves sooner or later into four questions, the replies to which, if given in full detail, supply us with a perfect knowledge of the present and past life of the organism and its race. Query the first, concerning the living being—animal or plant, monad or man—resolves itself into the inquiry, "what is it?" To this question the science of *morphology*, or that of *structure*, affords a reply. The external form and the internal anatomy of the organism are investigated under this primary question of the biologist. The animal mechanism and the nature and relations of plant-tissues and organs fall naturally within the scope of this question and its reply. But the organism possesses its vital activities as well as its structural details. In the essence of its nature, it presents for our study those actions through which it maintains its own individual existence, and that of its race or species likewise. A second question thus becomes imperative, and inquires, "how does it live?" To this query it is the province of *physiology*, as the science of *functions*, to reply. Summarising the life of any organism, three terms may be found to denote the sum total of its vital activity. It firstly nourishes itself, and thus engages in the exercise of the function of *nutrition*. It thuswise provides for the maintenance of its individual frame. But as the death of individuals thins out the ranks of the species, the exercise of a second function, that of *reproduction*, provides for the continuance of the race in time. Then, lastly, the animal or plant, whatever its sphere or place in the organic series, or in the world at large, exhibits certain relations to its surroundings. Deprived of

the means for exhibiting this relationship, the living being becomes practically as the dead things around it. It is the power of relating itself to its environments which gives to the living body its chief



FIG. 1. MAP OF THE ZOOLOGICAL PROVINCES.

characteristics. It is the action and reaction of the organism upon the world around it, and its adaptation to its surroundings, which impart to the *animal or plant* its plainest differences from the

inorganic things around. Hence we distinguish a third function of the living being; that of *innervation* or *relation*. Exercised through the medium of a nervous system or its representative tissues, this function of relation regulates and controls, whilst it connects and harmonises, the other actions of which life's activities consist. The animal or plant, regarded from a physiological standpoint, lives thus a threefold existence, and performs a triple round of duties. It nourishes itself, it reproduces its race, and it develops and exhibits relations with its surroundings. The knowledge which demonstrates how these functions are performed answers the second of our four questions—"how does it live?"

Structure and functions, all-important as their detail may be for the understanding of animal and plant histories, do not, however, constitute or bound the entire range of biological observation. The inquiries of even the childish stage of man's culture concerning the living as well as the non-living universe, include, above all other points, the inquiry, "where is it found?" Especially natural does such a question appear when applied to the living tenants of the globe. When we ask ourselves where any organism is found, in what quarter of the globe it is plentiful, where it is scarce, or where, lastly, it is never to be discovered, we are in reality approaching topics which lead us tolerably near to the ultimate questions of all biological study. It is the science of *distribution* which professes to answer the questions relating to the whereabouts of animals and plants in the world as it now exists, and in anterior epochs of our globe as well. Distribution thus includes two most natural divisions or lines of inquiry. It summarises the existing life of the globe in its inquiries regarding the geography of living things, or their *distribution in space*, as it is technically termed; whilst it no less succinctly attempts the solution of the problems relating to the past history of animals and plants, when, proceeding to avail itself of the information collected by geology, it pictures for us *their distribution in time*.

The knowledge of the structure, functions, and distribution of a living being, once comprehended all that science could hope to know of its history. Contenting itself with the fact that living beings are, biology might regard the knowledge which these three queries, "what," "how," and "where" supplied, as all-sufficient for the furthest mental demands. But the newer epoch of biology includes a fourth question in its list of queries concerning living things. It presents for solution yet another problem, in the terms of which is focussed all the knowledge gained in other departments of biological research. This fourth query is that which demands to know "how

the living being has come to be what it now is"—or "how it has attained to its present place and position in the animal or plant series." The mere terms of such a question presuppose that the living population of our globe has undergone progressive development. It postulates change and alteration as natural conditions of existence, and it inquires how, in the case of each animal or plant, such change has operated—in what direction it has sped, and how it has affected and modified the living organism. Thus stated, there can be no difficulty in recognising the theory of evolution or development as that which purports to supply this mental demand, and to reply to the inquiry concerning the past history of animals and plants in relation to their present position and genealogical connections. Time was when the need for such a question was non-existent. So long as mankind regarded the world of life as presenting a fixity of constitution, there could exist no question of wide organic change for the biologist to meet and answer. With a firm and undisturbed belief in the special and independent "creation" of each species of living beings, the mind could experience no philosophic or other necessity for any inquiry into a past of modification and change. Possessing the idea that stability of organisation and form was the rule of existence, men had not learned to look for a past wherein, as in a glass darkly, might be discerned the birth of new species arising through the modification of the old. But the germ idea of such an evolution of life existed and prevailed long before the age which has seen its full fruition. Here and there evidence is to be found that, even in classic ages, the great problem of problems concerning the how and why of the universe itself was growing apace in the minds of men. Aristotle, remarking that rain falls not to make the corn grow, any more than it descends to spoil the crops, asks, "what therefore hinders the different parts (of the body) from having this merely accidental relation in nature?" So also Lucretius, in another department of inquiry, shadowed forth the atomic constitution of things, and paved the way for the thoughts of the after ages, when Lamarck, Erasmus Darwin, Goethe, and, in our own day, Charles Darwin, Wallace, and others, have busied themselves with the problems of the development of the teeming population of the globe. Thus arises the philosophic necessity for a fourth question—that of the *atiology* or causation of living beings. This question, utilising all the knowledge gained by the sciences of structure, physiology, and distribution, endeavours to show how the organic world has grown and progressed towards the perfection it exhibits before our waiting eyes to-day.

This brief sketch of the four great questions of biology may serve to show the exact position which the study of Distribution bears to the other departments of natural-history research. Taking its stand as a distinct branch of inquiry; dealing with the causes which have placed animals and plants in their distinct regions; investigating the conditions which make for or contend against the diffusion of animals and plants on the surface of the globe—the science of distribution presents problems and attempts the solution of questions involving, it may be, the furthest knowledge of present and past alike, which is at our command. Nor must we neglect to note that the study of distribution relates that present history, in the most intimate fashion, with the past of the globe. The continuity of the past with the present is too much a ruling idea of the biological mind to allow the importance of the geological factors in the world's problems to be overlooked. Not a few of the knotty points of distribution are soluble from the side of geology alone. If, therefore, for no other reason than that it links present and past so intimately together, thus making the unbroken continuity of causation a necessity in biological explanation, the study of distribution would take its place in the first rank of the sciences of to-day. Bearing in mind this two-fold division of distribution into that *in space* (or “geographical distribution”) and that *in time* (or “geological distribution”), we may now profitably proceed to inquire into the history of the growth and progress of this department of inquiry.

If we turn to text-books on natural history, written even some ten years ago, we shall discover that, whatever may be the importance of the study, the science of distribution is of comparatively recent growth. The information dispensed in these manuals of biology resolves itself for the most part into a brief recital of the countries in which different animals and plants are found. Thus the facts of distribution, which an intelligent child is now taught in the nursery, comprehend all that was known, even in recent science, respecting the habitats of animals and plants. To know that lions occur in Africa, and tigers in India; to learn that the giraffe and the hippopotamus are tenants of Ethiopia, and that rhinoceroses occur both in Asia and Africa; to be able to say definitely that kangaroos never occur without the bounds of Australian islands, or that humming-birds are found in the New World alone; to know where palms grow or where cacti abound—these were the only facts which the “distribution” of twenty years ago included. The plain enumeration of these or any other facts, however, does not raise them to the rank of a *science*. The mere mention of the detached countries in which

plants and animals occur, does not constitute a philosophical piece of information calculated to explain either itself or any correlated facts of natural history. That method alone converts any body of details into a science, which places them in harmony with each other, and which, connecting them by, it may be, even a transcendental bond, links them together as parts of a whole. To know, for example, that the existing horse walks upon the greatly developed third toe of each foot, to become aware that the horse likewise possesses two rudimentary toes on each foot, are mere facts, valuable enough perhaps in themselves, but useless, so long as they remain isolated, for any higher or philosophical reasoning concerning the horse or any other animal form. Once, however, let these facts be placed in true harmony with other details regarding the equine race, and the science—that is, the true knowledge—of horses is then constituted. Thus, if we discover that the horses of the present are connected by a complete series of gradations with the horses of the past; and that we may pass by graduated stages from the one-toed horse of to-day to the five-toed Mesozoic ancestors of the race, we at once rise into the region of a philosophy which, through correlated facts, seeks to teach us the origin of the equine species. If, further, knowing that horses were believed to have first been introduced into the New World at the Mexican Conquest, we suppose that in its distribution the horse is a strictly Old World form, that isolated fact tells us but little of the history of the race. Even if we discover that the fossil remains of horses occur in the Tertiary deposits of America as well as in those of Europe, the knowledge of that fact may certainly enlarge our ideas of the former distribution of horses, but of itself the fact does not place us in possession of any connected details concerning the general history of the form in question. But when, by bringing these varied facts into relation with each other, we seek to construct a pedigree of the equine race, we then illustrate the higher use of our knowledge, in that we cause that knowledge to explain itself.

Of all the facts of distribution, the same opinion may be expressed. Formerly, to say that a given animal was found in this land or that, was accounted the beginning and end of distributional science. The influence of evolution, and the growth of newer ideas concerning the modification of species, have together created for us a literally new science of distribution. The ideas which prevailed a quarter of a century ago regarding the fixity of species, and the consequent fixation within certain limits of their habitats, demanded no further exercise of scientific acumen than that necessary to say

from what region any given organism was derived, or from what tracts it was absent. With altered ideas of the constitution of the animal and plant worlds, higher and better because truer conceptions of the manner and causes of the distribution of life on the globe grew apace. In the days of Edward Forbes, the doctrine of "specific centres" held its own as representing the foremost science of its day and generation. With the dogma of the special and independent creation of each species of living beings left utterly unquestioned, it was of all logical processes the most natural that a "special centre" of creation should be sought and found for each species. This theoretical "specific centre" was allocated, *ceteris paribus*, in the region where the species was found to be most abundantly represented. The diffusion of a species beyond its centre was due, it was held, to such favouring influences as continuous land surfaces, the presence of food in surrounding regions, favourable temperatures and climates, and like conditions. The limitation of a species to its centre or original area was held, conversely, to depend upon an absence of the conditions favouring migration and dispersion. The presence of rivers, lakes, or seas, the existence of land-barriers in the shape of mountain-chains, extremes of temperature and vicissitudes of climate and other causes, were regarded as the means whereby a species was confined more or less strictly within its area.

But the growth of the idea that the existing species of animals and plants were the descendants, by ordinary generation, of pre-existing species, wrought a wonderful and sweeping change in biological opinions concerning distribution, as in every other department of natural history science. The theory of the separate and detached placing of animals and plants here and there over the surface of the earth, in obedience to no ascertainable law, was soon driven to the wall as a weak invention possessing no logical standpoint whatever. Affording no reason for the marvellous diversities of life's distribution, the doctrine of "specific centres" was soon consigned to the limbo reserved for the myths and traditions of biology. To say that providential reasons—namely, the necessity of a fatty dietary on the part of the Esquimaux—accounted for the presence of seals and whales in the Arctic regions, or similarly, that farinaceous plants grew most plentifully in the tropics because the inhabitants thereof fed upon their products, might indeed satisfy primitive minds, preferring to bring scientific facts under the sway of dogma rather than to test dogma by the logic of facts. Moreover, all such apologetic attempts at correlating the facts of distribution with theoretical interpretations

of the designs of Providence missed their mark, because in placing man in the first place, and the distribution of life in the second, they reversed not merely the chronological order of affairs, but subverted the real aspect of the case. Thus, clearly, no explanation of the "whys" of distribution was forthcoming from former aspects of this study, just as the "hows" of the science were equally neglected. The newer era of research inaugurated by the publication and growth of Mr. Darwin's opinions, derived no small share of its power and progress from its ability to explain the "how" and "why," not merely of distribution, but of other departments of biology. Evolution, for example, gave a reasonable explanation of the *metamorphosis* or series of changes through which many animals pass, externally to the egg, in their development. The tadpole, as every schoolboy knows, grows to be a frog through successive changes converting it from a fish-like organism into the type of the air-breathing terrestrial adult. The caterpillar, through equally well marked alterations of form, becomes the butterfly or moth. Under the old idea of zoological causation, either form undergoes metamorphosis, because, to quote the words of Kirby and Spence, "it is the will of the Creator." "This, however," as Sir John Lubbock remarks, "is a confession of faith, not an explanation of metamorphosis." Evolution satisfactorily and finally replaces the want of rational ideas of metamorphosis by a higher idea of satisfactory causation, namely, heredity. The frog passes in its development through a metamorphosis, because its ancestor was a fish-like organism. It repeats, as an individual frog, the history of its race. So, also, an insect may directly or indirectly be credited with demonstrating, by the course of its development, its origin from lower stages of life. The development of every animal is a brief recapitulation of the descent of its species. Obscured, and often imperfect, that biography may be, but nevertheless it is plainly outlined before the seeking eye and understanding mind.

If evolution has thus assisted our comprehension of why an animal passes through apparently useless stages in the course of its development, no less clearly has that theory brought to light the meaning of the previously isolated facts of distribution. It was evolution which played to these facts the part of a guardian genius; marshalling their ranks into order and arrangement, and demonstrating that relationship between them which it is the province of science to explain. It is necessary to dwell upon the influence which evolution has exerted upon the study of distribution, simply because the latter science practically dates its origin from the day when the modifica-

tion of existing species as a means of natural creation of new races of animals and plants was recognised. And it is with the greatest satisfaction that one may dwell upon this mutual relationship of distribution and the theory of development, since the due appreciation of the clear explanation which the facts of distribution receive from evolution at large, constitutes a powerful counterproof of the truth of that theory. It is not surprising, therefore, to find Professor Huxley saying that "no truths brought to light by biological investigation were better calculated to inspire distrust of the dogma intruded upon science in the name of theology, than those which relate to the distribution of animals and plants on the surface of the earth. Very skilful accommodation was needed," continues Huxley, "if the limitation of sloths to South America, and of the ornithorhynchus to Australia, was to be reconciled with the literal interpretation of the history of the deluge; and with the establishment of the existence of distinct provinces of distribution, any serious belief in the peopling of the world by migration from Mount Ararat came to an end. Under these circumstances, only one alternative was left for those who denied the occurrence of evolution—namely, the supposition that the characteristic animals and plants of each great province were created as such within the limits in which we find them. And as the hypothesis of "specific centres" thus formulated was heterodox from the theological point of view, and unintelligible from the scientific aspect, it may be passed over without further notice as a phase of transition from the creational to the evolutionary hypothesis. In fact," adds Huxley, "the strongest and most conclusive arguments in favour of evolution are those which are based upon the facts of geographical distribution taken in conjunction with those of geological distribution."

Or if we turn for a moment to the opinion of Mr. Darwin himself, we shall find an equally clear expression of the futility of the attempt to explain distribution on any other save an evolutionary understanding. In his classical work, the "Origin of Species," Darwin remarks the fact that "neither the similarity nor the dissimilarity of the inhabitants of various regions can be wholly accounted for by climatal and other physical conditions." He secondly notes the fact, "that barriers of any kind, or obstacles to free migration, are related in a close and important manner to the differences between the productions of various regions;" and a third fact noted by Darwin is "the affinity of the productions of the same continent or of the same sea, though the species themselves are distinct at different points and stations." Again, Darwin remarks that, "in discussing

this subject we shall be enabled at the same time to consider a point equally important for us, namely, whether the several species of a genus, which must on our theory all be descended from a common progenitor, can have migrated, undergoing modification during their migration, from some one area. If, when most of the species inhabiting one region are different from those of another region, though closely allied to them, it can be shown that migration from the one region to the other has probably occurred at some former period, our general view will be much strengthened, for the explanation," adds Darwin, "is obvious on the principle of descent with modification. A volcanic island, for instance, upheaved and formed at the distance of a few hundreds of miles from a continent, would probably receive from it in the course of time a few colonists, and their descendants, though modified, would still be related by inheritance to the inhabitants of that continent. Cases of this kind are common, and are, as we shall hereafter see, inexplicable on the theory of independent creation."

If further evidence were desirable concerning the influence of evolution as explanatory of the distribution of living beings in the past and present of the earth, such opinion might be culled from Sir Charles Lyell. The late eminent geologist remarks, that Buffon, when speculating on "philosophical possibilities," in 1755, urged, "that whilst the same temperature might have been expected, all other circumstances being equal, to produce the same beings in different parts of the globe, both in the animal and vegetable kingdoms, yet it is an undoubted fact, that when America was discovered, its indigenous quadrupeds were all dissimilar to those previously known in the Old World." "Thus Buffon," says Lyell, "caught sight at once of a general law in the geographical distribution of organic beings, namely, the limitation of groups of distinct species to regions separated from the rest of the globe by certain natural barriers." In conformity with the doctrine of special centres of creation, as Lyell remarks, the "natural barriers" of Buffon held a perfectly logical place. Separate creations in the New World, and special creations in the Old, separated by intervening oceans, served fully to explain the reasons of the divergence between the animal populations in question. "But," adds Lyell (in further alluding to the close correspondence between the fossil forms and the living beings of any given area), "the intimate connection between the geographical distribution of the fossil and recent forms of mammalia, points to the theory (*without absolutely demonstrating its truth*), that the *existing species of animals and plants . . . are of derivative origin,*

and not primordial or independent creations." Last of all, Mr. Alfred Russel Wallace—to whose labours we owe much, if not the greater part, of the light which has been thrown on the formerly obscure problems of distribution—testifies in the most direct terms to the value of the theory of evolution. Towards the firm establishment of this theory he himself has made many important contributions, and has thus aided its place and power in explaining the laws regulating the development of life on the surface of the globe. "We further have to make use of the theory of 'descent with modification,'" says Mr. Wallace, "as the only possible key to the interpretation of the facts of distribution; and this theory," he adds, "has only been generally accepted within the last twenty years. It is evident that so long as the belief in 'special creations' of each species prevailed, no explanation of the complex facts of distribution *could* be arrived at, or even conceived; for, if each species was created where it is now found, no further inquiry can take us beyond that fact, and there is an end of the whole matter." Again, we find a sentence worth quoting, and worth bearing in mind, when Mr. Wallace remarks, that "if we keep in view these facts—that the minor features of the earth's surface are everywhere slowly changing; that the forms, and structure, and habits of all living things are also slowly changing; while the great features of the earth, the continents, and oceans, and loftiest mountain ranges, only change after very long intervals, and with extreme slowness; we must see that the present distribution of animals upon the several parts of the earth's surface is the final product of all these wonderful revolutions in organic and inorganic nature."

The proposition that in the existing world we may find a reflex of those causes which have wrought out the scheme of life's distribution over the surface of the globe, has received the tacit sanction and approval of all competent biologists. This result has been attained through the slow but sure and progressive advance of modern ideas concerning the uniformity of natural law and physical causation. The teachings of evolution in biology are but the reflections of "uniformity" in geology. As the doctrine of uniformity has taught us that the physical forces represented in and by the internal heat, water, frost, snow, and chemical action, are the agencies which from all time past have been sculpturing and moulding our earth's features—as we trace in the physical actions of the present the key to the activities of the past—so in biology we assume, and assume logically, that the ordinary activities of life, the processes of variation and change, and the influence of environments on the living form, are the

agencies which mould the world of life now, as in the earliest æons, and as in the beginning itself. Rejecting the idea of uniformity in science, we fall back on the catastrophism of primitive geology and on the "special creation" of those early times of biology, when fabulous theory represented the exact observation of to-day. Accepting, however, the theories of "uniformity" in the inorganic world and of "evolution" in the living universe, we unite the sciences in a circle, outside the magnificent unity of which no fact of inorganic nature or of the living world can be presumed to exist.

The division of the world's surface for the purposes of ordinary geography is obviously unsuited to the wants of the biologist. The geographical survey of the earth is of necessity a matter of politics. The greater nation tends to obliterate the smaller; allocation of territory is largely a matter of division of spoil; and the outlines and boundaries of the countries of the world reflect the kaleidoscopic change which marks the arena of political strife and its concomitant warfare for its own. For scientific purposes, then, the standpoints of the political geographer are unavailable. Save in so far as the march of civilisation means and implies the destruction and repression of the animals and plants which are either useful or useless and dangerous to man, the distribution of life on the globe is comparatively unaffected by the divisions whereby man demarcates his territorial possessions from those of his neighbours. A rat may pass as placid an existence under the Czar as under British rule: a kangaroo will live as successfully beneath Dutch as under English sovereignty; but there may be more prospect of length of days for the hippopotamus under existing circumstances than under an extension of civilisation in the north of Africa. Neglecting, then, the political divisions of the world, the biologist divides the earth's surface into regions, the boundaries of which are determined solely by the distribution of the animals and plants included within their limits. Sweeping aside the lines of demarcation which human powers and aims have constructed, the naturalist constructs a new biological geography, whose continents and countries are under the unceasing sway and sovereignty of those natural forces, agencies, and laws which from all time past have affected the destinies of the earth and its tenants. It is on the very threshold of distribution that we begin to note the wide variations between the former and present methods of studying life's development over the globe's surface. Formerly, the range of any living being was denoted simply by the name of the country or continent in which it occurred.

But it is evident that such a method of indicating an animal's

territory is in the highest degree indefinite. To speak, for instance, of India as the habitat of the tiger, is to imperfectly indicate the range of that animal, which extends over at least two-thirds of the continent, besides being found in the Eastern Archipelago. Or, if we select one or two common British quadrupeds, we may find the anomalies of the common method of naming the habitats of animals to be equally well represented. For instance, the badger is commonly described as being found in Europe. Such a method of denoting its range tends to imply that its distribution is limited to that continent. But in point of fact, the badger ranges eastwards from Central Asia to Amoor, and southwards to North Africa as well. The otter's distribution ranges to North Africa, and extends to Siberia; the hedgehog is found from Central Asia to Amoor, like the badger; and the mole extends as far as Central Asia. Certain of our birds fall equally without the common indications of distribution. Our grey wagtail (*Motacilla sulphurea*) extends to North Africa, and occurs also in Central Asia, China, and Malaya; and the house-sparrow, fieldfare, starling, and crow, have a distribution varying from Britain to North Africa and Central Asia. The inadequacy of ordinary descriptive geography to indicate the range of these animals can therefore be readily understood. In the nature of things, the distribution of animals and plants follows certain laws which have left their impress upon the boundaries of land-regions likewise. It remains for us to see how the earth's surface has been mapped out by these laws into natural continents or regions, each characterised by its own characteristic fauna and flora. The popular description of animal and plant distribution, moreover, besides

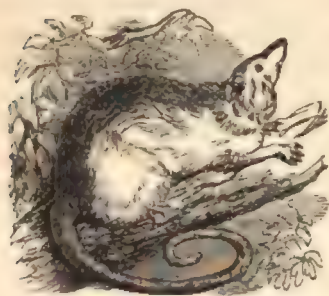


FIG. 2. OPOSSUM.

affording no exact details of the boundaries of its regions, gives no information concerning the causes which limit an animal to a small area in one case, or which extend an animal's range over a wide area in another. On the contrary, when, taking as our guide the natural divisions of earth's population, we discover the exact distribution of animals and plants, we lay thereby the foundation of the knowledge

which shows how that distribution has been attained and regulated. It is not sufficient, for instance, for any intellectual purpose, to know why kangaroos are found in Australia alone. The mind

naturally proceeds further, and inquires, why should these animals be limited to the region in question? It by no means conveys any adequate information concerning the distribution of the marsupial or "pouched" order of quadrupeds to be told that all known members of the group, kangaroos included, are confined to the Australian region, with the single exception of the true opossums or *Didelphidae*—these latter animals occurring in the New World, but being absent from Australia. The natural queries, why should kangaroos be confined to Australia, and why should the opossums (Fig. 2) alone of all marsupials be found without the bounds of Australia, are not answered by the mere geographical descriptions of former days. Nor do these descriptions indicate why, to select other examples, Australia is practically destitute of all higher quadrupeds; or why antelopes have their head-quarters in Africa, where, south of the great desert, deer do not typically occur, whilst deer are found in all other regions save Australia. So also the mere note of an animal's country as politically defined, and the mention of the fact that bears inhabit Europe, Asia, and North America, gives no explanation why these animals are absent from tropical and South Africa. The pigs, again, are common over Europe and Asia down to New Guinea, yet Southern Africa knows not this race any more than it includes the deer amongst its denizens. Nor can we explain according to ordinary geographical notions, why tapirs should exist in regions so far apart as Malaya and South Africa, or why camels and llamas should inhabit the Asian deserts and the slopes of the Andes respectively. Or, last of all, how impossible of explanation, on ordinary grounds, is the fact that the anthropoid or man-like apes occur in regions so widely separated as Western Africa and Borneo. It is clear, therefore, that our glance at the world's geography in relation to the distribution of life must go deeper into the nature of things than do the common descriptions of the countries tenanted by animal and plant races. Here, as in other departments of scientific inquiry, we require to refer to a former state of things, and to glance backwards in time for the true solution of the problems of life's development over the globe. The naturalist of to-day thoroughly endorses Mr. Wallace's statement, that "to the older school of naturalists the native country of an animal was of little importance except in so far as climates differed. . . . A group of animals was said to inhabit the 'Indies'; and important differences of structure were often overlooked from the idea that creatures equally adapted to live in hot countries, and with certain general resemblances, would naturally be related to each other. . . . To the modern naturalist,

on the other hand, the native country (or 'habitat,' as it is technically termed) of an animal or a group of animals is a matter of the first importance; and as regards the general history of life upon the globe, may be considered to be one of its essential characters."

That certain divisions, or "regions," bounded by distinct lines of demarcation, exist to represent the natural method of distribution of animals or plants on the earth's surface, is a fact readily provable. For example, one of the most remarkable results attained through the investigation of the distribution of animals and plants, is the fact that a line passing between the little islands of Bali and Lombok in the eastern archipelago, and separating Borneo, Java, and the Philippine pines from Celebes, New Guinea, and Australia (see Fig. 1), serves as a boundary between two regions exhibiting the greatest diversity in their animal and plant life. On the Borneo side of this line we have a rich collection of higher quadruped life—man-like apes, lemurs, monkeys, antelopes, tigers, rhinoceroses, and other forms, along with the babblers, hill-tits, bulbuls, crows, hornbills, pheasants, and jungle-fowl among the birds. On the Australian side, not a single higher quadruped (if we except a few bats, and rodents, a recent introduction) is native; and the kangaroos and their neighbours represent the fulness of quadruped life in the archipelago. The special birds of the archipelago have for the most part disappeared. The bulbuls, pheasants, barbets, and vultures, find no place in the Australian islands; but in their place we find the curious honey-suckers, the piping crows, the lyre-birds, the cockatoos, lorikeets, and parroquets, the brush-turkey and mound birds, emus and cassowaries, and other characteristic forms. It is difficult to imagine a change of fauna so complete as that which meets the eye of the traveller as he passes across the narrow straits of Lombok to enter the Australian region. Yet the divergence is of the most characteristic nature, and depends upon the causes which lie at the root not merely of physical but of biological change. The remarkable fact that the animals common to Europe and Central Asia pass into Africa north of the desert, but are not, as a rule, found in India is similarly explicable on the ground that the distribution of life shows us the natural divisions and natural geography of the globe. It now remains to investigate the limits and boundaries of the divisions (or "zoological regions," as they are named), to indicate the more familiar types of life resident in each, and to ascertain, last of all, the chief facts which, when brought into scientific relationship, serve to explain how and why the life of the earth has been thus distributed.

Mr. Sclater, the secretary of the Zoological Society of London, proposed, from a consideration of the bird-life of the globe, to divide the earth's surface into six provinces or regions. These regions, whilst indicating the distribution of the birds, likewise serve to show that of the quadrupeds; whilst it is found that they also represent the essential features of the distribution of still lower grades of life. Mr. Sclater's six divisions have received, with one or two modifications, the common approval of naturalists. Professor Huxley, it is true, has proposed a somewhat different division of the earth's surface, and it may be convenient in the first place to note this latter arrangement. Making four provinces from the consideration of the distribution of fauna, Huxley divides the earth's surface as follows:—

Zoological Province	Geographical Equivalents
I. Ornithogæa or Nova-Zelanian . . .	New Zealand alone.
II. Antartogæa or Australian . . .	{ Australia, Tasmania, and Negrito Islands.
III. Dendrogæa or Austro-Columbian . . .	{ South America, Central America, and Mexico.
IV. Arctogæa	{ (1) North America (N. of Mexico).
Having as sub-provinces . . .	{ (2) Africa (S. of Sahara).
	{ (3) Hindostan.
	{ (4) Europe, Asia (except India), and Africa (N. of desert).

The effect of this arrangement is to bring prominently into view the biological peculiarities of New Zealand, Australia, and South America, and to relate more nearly together those quarters of the globe (Europe, Asia, India, and Africa) which possess more features in common than the other and more specialised provinces. With all deference to such high authority as Professor Huxley in himself represents, one objection to his system of zoological geography may be found in the fact that the claims of New Zealand to rank as a distinct zoological region are highly debateable. Again, in the system propounded by Mr. Sclater, the geographical equivalents of Huxley's *Arctogæa* are practically retained, and the not inconsiderable merit of simplicity, as well as considerations relating to the distinctness of the fauna, may weigh in the minds of naturalists as favouring the adoption of Mr. Sclater's provinces of distribution.

These provinces or regions, depicted in Fig. 1, are as follows:

- | | |
|---------------------------------|--|
| I. Palearctic Region . . . | { includes Europe, Africa N. of the Desert, and Asia (except India and the Eastern Peninsula). |
| II. Oriental (or Indian) Region | { includes India and the Eastern Peninsula and Archipelago to "Wallace's Line." |

III. Australian Region . . .	} Australia, New Guinea, New Zealand, and Eastern Archipelago S. of "Wallace's Line."
IV. Ethiopian Region . . .	
V. Nearctic Region . . .	Africa S. of the Desert, and Madagascar.
VI. Neotropical Region . . .	North America, down to Central America.
	South America, West Indian Islands, and Southern Mexico.

Beginning with the *Palæarctic Region* (Fig. 1), or the first of the six great provinces into which the biologist maps out the earth's surface, we may, in each case, firstly define the geographical boundaries of the province; next note the leading groups of living beings which characterise the region; and finally discuss its sub-regions wherever these latter present any features of striking interest. The constitution and limits of the Palæarctic Region introduce us at once to the revolution in geographical ideas which the study of distribution entails. We shall find therein a typical instance of that apparently arbitrary division of continents and piecing together of diverse lands, beneath which lies, in reality, the true relationship of the land areas of our globe. The Palæarctic Region of the biologist consists (1) of Europe in its entirety; (2) Asia, except India and the Eastern Peninsula, along with as much of Africa as lies north of the desert. In the "mind's eye" we must, therefore, separate out the areas just mentioned from those with which, in ordinary geography, they are so intimately associated, and, piecing them together, form a great zoological province. This province is characterised, as are the other five divisions, by the possession of animals and plants which, for the most part, remain characteristic of its limits. Here and there we may detect a commingling with the forms of adjoining regions, and occasionally we may meet with a group which is common to two or more regions. Sometimes we see groups—such as the crows, swallows, owls, and pigeons among birds, or the rats and mice among quadrupeds—which have representatives in every region, and are thus cosmopolitan, or nearly so, in their distribution. But, apart from these exceptional instances, the main zoological and botanical features of each region are readily distinguishable; and no less so, as a rule, are the sub-regions into which each province is divided from considerations connected with the prevalence of special groups of animals in certain localities.

The quadrupeds of the Palæarctic Region include many familiar forms. As compared with the region most closely resembling it—namely, the Nearctic—this first region possesses a much greater *variety of quadrupeds and birds*. A very fair representation of all *the higher animals* is found in the Palæarctic province. With the

exception of the monkey of Gibraltar—an importation from Northern Africa—and the Japanese ape, no apes occur in this region. The bats are not markedly peculiar, but the whole of the mole family, save one American and two Oriental species, is included within its limits. Of carnivora it has a fair share, although the larger beasts of prey are well-nigh absent. There are numerous lynxes; wolves, foxes, and bears are plentiful but not peculiar; the badgers occur typically here, whilst Japan has a peculiar dog (*Nyctereutes*) and a special otter (*Lutronectes*). The Ungulates, or hoofed animals, include the camels, which are typical tenants of the Palæarctic Region; there are six genera of deer peculiar to the region, along with seven peculiar genera of the ox family (chiefly antelopes), such as the chamois and saiga. This region may be described as the headquarters of the sheep and goats, since but two species (one American and one Indian) exist without its bounds. The *Rodentia*, or "gnawers," are well represented likewise. Twenty-seven rodents occur nowhere else, and those genera occurring in other regions—such as the voles, pikas, and dormice—still possess representatives in the Palæarctic territory. The birds of this region, like the quadrupeds, present us with many well-known genera and species. The true pheasants are wholly limited to this region, if we except one species found in Formosa; the corncrake, the great bustard, and the sand-grouse, are specially Palæarctic. Of smaller birds this region has likewise its typical representatives. The grasshopper-warblers (*Locustella*), the true warblers (including the robins), the bearded titmouse, the wrynecks, the magpies, choughs, and nutcrackers are characteristic of this region. The reptiles and amphibians are relatively few. There are, however, at least two genera of snakes, seven genera of lizards, eight frogs and toads, and eight newts and salamanders which the region claims as its own. The fresh-water fishes peculiar to this territory, it may be added, number about twenty genera. The sub-regions number four. Of these, Central and Northern Europe, with their peculiar Desman-rat and chamois, form one. The Mediterranean borders constitute another, and contain as peculiar animals the fallow-deer, the elephant shrews, the hyæna, the porcupine, and the coney. The Siberian sub-region forms a third, and is the special home of the yak, or hairy bison of Thibet, the Thibetan antelopes, and a peculiar mole; whilst in the fourth sub-region, formed by Japan and Northern China, we find special forms of monkeys, moles, and other quadrupeds, the most notable being a carnivorous animal, the *Æluropus*.

Turning next to the *Ethiopian* region, we discover this latter

province to include Africa south of the desert, whilst the island of Madagascar forms a notable sub-region. In Ethiopia there are many characteristic quadrupeds and peculiar birds which do not

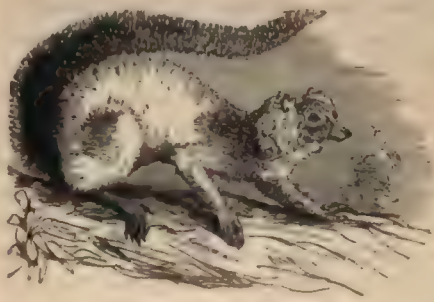


FIG. 3. THE LEMUR.

occur outside the limits of the region. On the west coast occur two of the four genera of anthropoid apes—the gorilla and chimpanzee. Here also are found the baboons and the lemurs, having their head-quarters in Madagascar, also occurring on the mainland. The lion possesses the continent as ruler of the carnivora; the spotted hyæna is found here along with the hyæna-dog and aard wolf are likewise typically Ethiopian. No less special to this territory are the zebras, giraffe, hippopotamus; whilst the region has likewise its own species of rhinoceroses. More than seven species of antelopes (Fig. 7) attest the fact that the race finds its home in this territory; and the African elephant is a peculiar genus and species. But the deficiencies in the quadruped-population of Ethiopia are likewise interesting; and we thus detect the absence of the deer, bears, and oxen, so conspicuous in other regions. The birds of the region are numerous. Limited to Ethiopia are the plantain-eater, ground hornbills, colics, secretary bird, whydah-finches, ox-pecker, guinea fowls, and the ostriches; we look in vain for the wren, creepers, nuthatches, pheasants, and jungle-fowl in the lists of Ethiopian fauna. The reptiles, amphibians, and fishes at present include three families of snakes, one family of lizards, one of toads, and three of fresh-water fishes, as absolutely peculiar to the region. The puff-adders and chameleons represent reptiles peculiar to the province under consideration. Whilst the Palearctic Region possesses 35 genera of mammals peculiar to itself as well as 57 genera of birds, the Ethiopian boasts of 90 peculiar quadruped genera, and 17 genera of land birds absolutely confined within its limits.

The Ethiopian sub-regions number four—being named the East, West, and South African, and Malagasay or Madagascar province respectively. Of these the Madagascar sub-region alone demands a passing notice. Including, besides the great island from which it derives its name, the Mauritius, Bourbon, Rodriguez, and the Seychelles and Comoro Islands, the Madagascar sub-region becomes

notable in zoological eyes from its forming the head-quarters of the lemurs or lower apes, and of the Insectivora. In addition to these quadrupeds, Madagascar possesses a few special carnivora (e.g. *Cryptoprocta*) of small size; but in this island the apes, lions, leopards, antelopes, and other familiar quadrupeds of Africa are entirely wanting. In Madagascar there are represented 12 families, 27 genera, and 65 species of quadrupeds. Of these three families and 20 genera are exclusively found in the island, and all the species of these families and genera are similarly peculiar, except perhaps a few of the bats. Extremely peculiar it is to find the lemurs so typical (including two families and 34 species) of Madagascar; these animals being represented on the west coast by two forms, and in Africa by one group, whilst they flourish elsewhere in numbers only in the Eastern Archipelago and in Southern India. As regards its bird-population, Madagascar owns 111 species of land birds, of which only 12 are identical with species inhabiting the adjacent continents. Thirty-three genera of birds are peculiar to the island, these genera including fifty species. Of Madagascar Mr. Wallace remarks, in speaking of its quadruped fauna, "the assemblage of animals above-noted is remarkable, and seems to indicate a very ancient connection with the southern portion of Africa, before the apes, ungulates, and felines had entered it. The lemurs, which are here so largely developed, are represented by a single group in Africa, with two forms on the west coast. They also reappear under peculiar and isolated forms in Southern India and Malaya, and are evidently but the remains of a once wide-spread group, since in Eocene times they inhabited North America and Europe, and very probably the whole northern hemisphere." Again, remarking of the birds of Madagascar, Mr. Wallace says: "So many perfectly isolated and remarkable groups are certainly nowhere else to be found; and they fitly associate with the wonderful aye-aye (*Chiromys*), the insectivorous Centetidæ, and carnivorous *Cryptoprocta* among the mammalia. They speak to us plainly of enormous antiquity, of long-continued isolation; and not less plainly of a lost continent or continental island in which so many, and various, and highly organised creatures could have been gradually developed in a connected fauna of which we have here but the fragmentary remains."

The *Oriental* region, formerly known as the "Indian" region, possesses boundaries of highly interesting nature. Comprising Asia south of the Palæarctic region, it includes India, the eastern peninsula, and the Malay archipelago as far as Borneo, Java, and the Philippines. Its southern or lower boundary is marked by a special line—

"Wallace's line"—which passes through a narrow but extremely deep channel—the Straits of Lombok—running between the little islands of Bali and Lombok (Fig. 1), and extending northward and eastward, leaves on its Australian side Lombok, Celebes, and adjoining islands. No fact of distribution, as has been already remarked, is more noteworthy than the sharp demarcation of the Oriental from the Australian region. In the Oriental province itself are found all the conditions for a rich development of life. There is variety in its physical contour; it is broken up into islands and peninsulas; it has its alternations of high mountain and valley, of hill and plain; its river-systems are many and extensive; its temperature is that of the equatorial zone, and its vegetation is in consequence varied and profuse.

Peculiar to the Indian region are at least three families of quadrupeds, that of the flying-lemurs, that of the Tarsiers, or spectre-lemurs, and that of the Tupaias, or squirrel-shrews. There are also many genera confined to this province, although possessing family representatives elsewhere. Thus there are monkeys of the genus *Presbyter*, and the special genera of true lemurs in this region; twelve peculiar civet cats find a home here; whilst three species of antelopes, five rhinoceroses, and the flying-squirrels (*Pteromys*) are typically Oriental in their distribution. Nor must we neglect the species which are limited to this province. The orang-outans and gibbons, two of the four kinds of highest apes, are included amongst its denizens; the tiger, the Indian elephant, sun-bears and honey-bears, the tapir, and the chevrotains or mouse-deer, lend their presence to aid in forming a diverse fauna of the most interesting kind.

Conspicuous among its birds are the tailor-birds, which are peculiar to the region, as also are the laughing thrushes. There are peculiar genera of woodpeckers, cuckoos, and hornbills. The minivets and grass-green fruit-thrushes are also characteristic Oriental birds. The sun-birds are represented by three genera; bee-eaters and kingfishers are likewise included in the Oriental aviary; and goatsuckers and whiskered swifts also fall to be enumerated. Only two parrot-genera are Oriental in distribution; the pigeons of the province being the fruit-eating *Treron* and *Carpophaga*. It is in this region that the races of "poultry" find their original home. The true jungle fowl, from one species of which all our domestic fowls have sprung, occurs widespread in this region. The peacocks, argus pheasants, and fire-backed pheasants, are also typical denizens of the Oriental province, and may fitly close the list of its bird inhabitants.

— The reptiles of the Indian region are numerous, but there are

only some three small families of snakes which are peculiar and limited to the region. The reptile population, apart from its specifically distinct character, is varied enough, however. It includes a whole host of snakes; amongst lizards it numbers the water-lizards (or *Varanidae*), the skinks, the geckos, and the iguanas (*Iguanidae*). The crocodiles are numerous, and fresh-water tortoises, amongst other genera, abound. The tree frogs and true frogs are well represented, and in its fresh-water fishes this region is peculiar. The Oriental province, to sum up, possesses at least twelve families of vertebrates peculiar to itself. Of the 118 genera of quadrupeds, 54 are confined to this province; and whilst 342 genera of land birds inhabit the region, 165 are absolutely confined to it. There are some four sub-regions included in the Oriental region. These do not demand special mention here, but it may be remarked that the Malayan sub-region—including the Eastern Peninsula, Borneo, Sumatra, Java, and the Philippines—is to be accounted the most typical area of the Oriental region. It is in the Malayan sub-region that we see the features of the Oriental province in their most typical development in most varied array.

Selecting as our fourth region the *Australian* province, the striking characters of this region have already been commented upon. Crossing "Wallace's line," we enter upon a biological territory marked by more peculiar features and by more divergent lines than those which separate the flora and fauna of any other two regions from one another. In Australia and New Guinea—as was to be expected from the fact of these islands presenting the chief areas of the region—the specialised character of its animals and plants is best seen. In Celebes this character is still preserved, although the denizens of that island do not present the special features of Australia, whilst the influence of Oriental migrations is clearly traceable. Of the life of New Zealand, which along with Polynesia falls within the Australian region, a more pronounced opinion may be expressed. The animals and plants of the New Zealand islands are in many respects so peculiar that, as we have seen, it has been proposed to include these areas in a special region. But, as we shall hereafter note, there exist other considerations which, whilst explanatory of the divergence of New Zealand from the Australian types, nevertheless show its fundamental alliance therewith. Thus New Zealand comes, logically enough, to form a part of the Australian region.

Primarily, then, in the Australian region we find at once striking likenesses to, and differences from, the New Zealand flora.

Sir Joseph Hooker, speaking of the relations between the plant-life of the two regions, says : " Under whatever aspect I regard the flora of Australia and of New Zealand, I find all attempts to theorise on the possible causes of their community of feature frustrated by anomalies in distribution, such as I believe no two other similarly situated countries in the globe present. Everywhere else I recognise a parallelism or harmony in the main common features of contiguous floras, which conveys the impression of their generic affinity at least being affected by migration from centres of dispersion in one of them, or in some adjacent country. In this case it is widely different. Regarding the question from the Australian point of view, it is impossible, in the present state of science, to reconcile the fact of *Acacia*, *Eucalyptus*, *Casuarina*, *Callitris*, &c., being absent in New Zealand, with any theory of trans-oceanic migration that may be adopted to explain the presence of other Australian plants in New Zealand; and it is very difficult to conceive of a time or of conditions that could explain these anomalies, except by going back to epochs when the prevalent botanical as well as geographical features of each were widely different from what they are now. On the other hand, if I regard the question from the New Zealand point of view, I find such broad features of resemblance, and so many connecting links that afford irresistible evidence of a close botanical connection, that I cannot abandon the conviction that these great differences will present the least difficulties to whatever theory may explain the whole case." Thus, whilst there are clear botanical affinities between Australia and New Zealand, these likenesses are really limited to plants which form the characteristic part of the New Zealand flora; and these plants, for the most part, belong to temperate species.

If the relations between New Zealand and Australia in the matter of their respective floras are so intricate, the relations between the animal populations of these areas are equally interesting. We may briefly glance, in the first place, at the New Zealand fauna, and then, by way of contrast, concern ourselves more especially with the animal life of Australia. The New Zealand islands, in superficial area, attain a size nearly equal to that of Italy. Their distance from Australia is about 1,200 miles; their vegetation is abundant and well distributed, owing to the absence of desert-lands. The zoology of New Zealand is peculiar. It has no native quadrupeds, if we except a couple of bats; it possesses an almost Hibernian freedom from reptiles in that it has no snakes, only three genera of lizards, and but one frog. There are 34 genera of land birds, and of these

16 are absolutely confined to New Zealand ; and to these are to be added five special genera of aquatic birds, making 21 marked genera in all. Amongst their birds, these islands include the chief species of "wingless" forms. The Moas of New Zealand represent an extinct wingless race, whilst the curious *Apteryx* (Fig. 4) remains to represent the wingless tribes of to-day. The winged birds include special forms of starlings (*Creadion: Heterolocha*, &c.); the curious crook-billed plovers (*Anarhynchus*), which alone of all birds have the bill twisted to the side ; and species of swallows, fly-catchers, &c.,



FIG. 4. APTERYX.

are also included in the ornithological catalogue of these islands. In New Zealand is found the kakapoe (*Stringops habroptilus*) or owl-parrot, which burrows in the ground, and whose powers of flight have deteriorated ; and the curious *Notornis*, a peculiar genus of rails, likewise possessing short and useless wings, may be lastly mentioned amongst the bird productions of these islands.

Included amongst the few lizards of New Zealand is the famous *Hatteria*, which in reality forms a connecting link between lizards and crocodiles, and even shows bird-affinities in its ribs. *Hatteria* thus remains isolated and solitary in its structure amid the lizard-class.

Turning now to Australia itself, we note that land to be the abode of the lower quadrupeds comprised within the two orders *Monotremata* and *Marsupialia*, which are represented by the *Ornithorhynchus* and *Echidna*, and by the kangaroos (Fig. 5), wombats, phalangers, and allied animals respectively. No monotreme whatever, and no marsupial



FIG. 5. KANGAROO.

forms—save the single family of the New World opossums—exist without the boundaries of Australia. These animals represent in

their varied types the orders of higher mammals distributed over the other regions of the earth; and the Australian region thus presents us with the home and head-quarters of the lowest, and, in point of time or geological sequence, the earliest, quadrupeds. Whatever higher quadrupeds—such as the sheep, oxen, horses, etc.—the colonisation of Australia has been the means of introducing into that region, it must be borne in mind that all the native mammals of Australia are of the lower grades, and are, with the exception of the American opossums (which do not occur in Australia), absolutely limited to that region. Even the world-wide rodents, represented here by a few rats and mice, are probably of relatively late introduction.

In respect of its birds, whilst Australia possesses species of the familiar thrushes, warblers, shrikes, crows, &c. of the other regions, it yet exhibits certain peculiar forms of bird-life. The bird-absentees are of themselves typical, for Australia has no representatives of the vultures, pheasants, woodpeckers, barbets, and other birds which are so characteristic of even the Oriental territory. But it has, nevertheless, a rich ornithology of its own, in its birds of paradise, its most typical honey-suckers, its lyre-birds, its scrub-birds, its parroquets, its cockatoos, its mound-birds, and its cassowaries. These are typically Australian forms; and there are bird-families sparingly found in other parts of the world—such as the swallow-shrikes and flower-peckers—but which are well represented in Australia. Lastly, there are families of birds—such as the kingfishers, pigeons, weaver-finches—well represented in other provinces, and which are, as a rule, better represented in Australia than in other provinces.

The reptiles of Australia do not present any special features for remark. Snakes and lizards are plentiful; and the Australian amphibians number frogs and toads, but no newts, in their ranks. Thus the Australian region, to sum up, possesses representatives of eighteen families of quadrupeds, eight of these families being absolutely confined to this region. It has seventy-one families of birds, sixteen being peculiar; it possesses four peculiar families out of thirty-one of reptiles; and it has only one family of amphibians, out of a total of eleven, confined within its limits.

Passing now to the western hemisphere, we find the New World divided into the *Nearctic* and *Neotropical* Regions (Fig. 1). The former includes North America in its arctic and temperate regions, and is bounded on the south by a line running between Cape Lucas on the west, and the Rio Grande del Norte on the east; the boundary line dipping southwards from this point in a tongue which extends well-nigh to the isthmus of Tehuantepec. Between the life of the

Nearctic and Palæarctic Regions there is a striking resemblance. In North American forests, the wolves, lynxes, foxes, bears, elks, deer, beavers, hares, squirrels, pikas, and marmots of Europe are represented often by similar species; and the bison of Western Europe represents the buffalo of the Nearctic prairies. But North America has its own peculiar quadrupeds likewise. For instance, the skunk and other two genera of weasels are found nowhere but in Nearctic lands. Then there are the carnivorous racoons which are likewise special forms; and among the rodents, the pouched rats (*Sacomyida*), the jumping mouse, the tree porcupines, and prairie dogs are peculiar. The Insectivora number three peculiar genera of mole. The pronghorn antelope (Fig. 6) and the mountain-goat are absolutely Nearctic. The opossums complete the list of



FIG. 6. PRONGHORN ANTELOPE.

peculiar mammals of the region; whilst the absentees may be summarised in the remark that the Nearctic Region is chiefly notable for its absence of wild horses and pigs, dormice, oxen, and hedgehogs, and true mice and rats (*Mus*). The single native sheep, as against the twenty species of sheep and goats of the Palæarctic Region, also typifies a remarkable deficiency of a widely distributed quadruped family.

The small birds of the Nearctic Region are, as a rule, well marked off from those of the Palæarctic province. The North American warblers belong to different families from the Palæarctic forms; the Nearctic flycatchers belong likewise to different groups from those at home; and the starlings are really "hangnests," or *Icterida*. The birds peculiar to the Nearctic Region are in turn well defined. The mocking-birds and blue-jays, the special cuckoos and the tanagers; the humming-birds; the wild turkeys and turkey buzzards, are all limited to this province. The humming-birds of the New World present certain extraordinary limitations in their distribution within the limits of the two regions comprising the Western hemisphere. The peaks and valleys of the Andes possess each its own species. On Pinchincha a peculiar species occurs, 14,000 feet above the sea level, and nowhere [else; another has been

found only inside the crater of the extinct volcano of Chiriqui in Veragua ; a third occurs only on Chimborazo ; and of another species only one specimen has ever been seen, the bird in question having been obtained, over forty years ago, in the Andes of Northern Peru.



FIG. 7. ANT. LOPE.

Again, the presence of such distinct reptiles as the rattlesnakes among serpents, and the true iguanas among lizards, is highly characteristic of Nearctic lands. This region, lastly, may be described as the home of the tailed amphibians or newt-tribe. Nine families—two peculiar to the region—and

fifteen special genera represent the newts and salamanders, which include in their ranks the sirens, amphiumas, and two forms related to the European proteus of the caves of Carniola and the giant salamander of Japan respectively. There are also five families of fresh-water fishes—including two families of the rare ganoids—to be enumerated amongst the specific animal belongings of this large area.

There can be no question of the clear distinctness of the Nearctic Region from all other regions, including the Palæarctic, to which, however, in the general characters of its animal life, it is so closely allied. The species that are really common are northern or Arctic forms, a fact which to some extent would seem to point to former land connections in the north as a cause of the similarity. Notwithstanding the likeness in question, the Palæarctic and Nearctic regions are essentially distinct ; and there are no reasonable grounds for any scheme of uniting their varied interests in one common biological territory.

The Neotropical region extends from the southern limits of the Nearctic region, and includes the remainder of the New World—that is, Central and South America—with the West Indian Islands as a sub-region of the territory. No region of the world, if we except the Australian province, presents such a variety of interesting biological features as the Neotropical province. Whether regarded in the light of its existing life and of the diversity of animal and plant species it presents to view, or studied in the relations of its present animals to the geological past, the Neotropical area equals, if,

indeed, it does not in some features excel in interest, the great island-continent itself. The monkeys of the Neotropical region, for example, are totally different from those of any other region of the globe.

They are broad-nosed, and usually possess prehensile tails, adapting them for an active life amid the dense forests of the region. Those apes have no callosities; their thumbs are less perfectly developed than in Old World apes; and cheek-pouches are also wanting. They include (Fig. 8) the spider monkeys, howlers, capuchins, marmosets, and many other peculiar and special forms. The bats



FIG. 8. SPIDER MONKEY.

are likewise peculiar, in that they are represented by the famous vampires and other blood-sucking species. The rodents are the chinchillas, the curious capybara, the pacas, and agoutis and tree porcupines, possessing, like the apes, prehensile tails. The carnivora include the racoons, which take the place in this region of the weasels of the Old World. Deer and llamas represent the ruminants of the region; and the tapir and peccaries represent

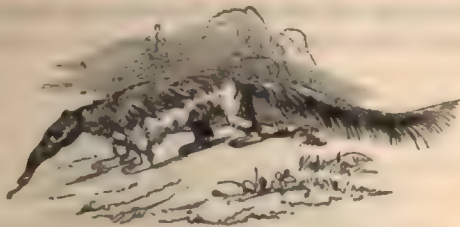


FIG. 9. ANT-EATER.

other forms of hoofed quadrupeds. It is the group of the *Edentate* quadrupeds, however, which finds in Neotropical territory its peculiar home. If the marsupial kangaroos and wombats characterise Australia as their head-quarters, no less typically in South America do the sloths, true ant-eaters (Fig. 9), and armadillo (Fig. 10) represent the fulness of Edentate development. With the exception of a few species of scaly ant-eaters or pangolins (Fig. 11) occurring in

the Ethiopian and Oriental regions, and the "aardvark" or ground hog of South Africa, the Edentate mammals are absolutely confined to the Neotropical Region; and it is in the recent deposits of South America that we likewise discover the fossil remains of those huge extinct edentata, of which the *Megatherium*, *Myodon*, and *Glyptodon* are well-known representatives.

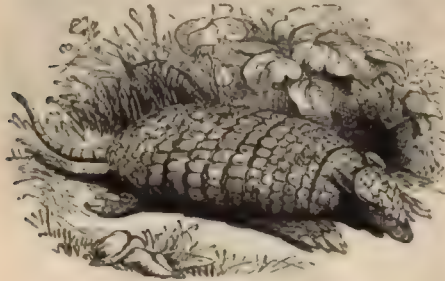


FIG. 10. ARMADILLO.

Last of all, the marsupial opossums, an apparent remnant of Australian life, find their home in the Neotropical area. As remarkable exceptions and absentees from the lists of South American quadrupeds may be mentioned the *Insectivora*, of which order—represented by the moles, shrews, and hedgehogs—not an example exists in this area, if we except a little shrew in the north, and one genus in the West Indian Islands. Then, also, we may note the absence of sheep and oxen; there are none of the civets, so widely spread over other areas; and there is an absence of the large carnivora, and of the elephants and rhinoceroses of the Old World.

Equally notable are the birds of the region. The smaller Passerine birds of the region (Formicaroid Passeres), curiously enough, want the singing muscles of the larynx, as a rule. To this group belong the ant-thrushes, tree creepers, tyrants, chatterers, and manakins. Other typical birds of this area are the tanagers, toucans, puff-

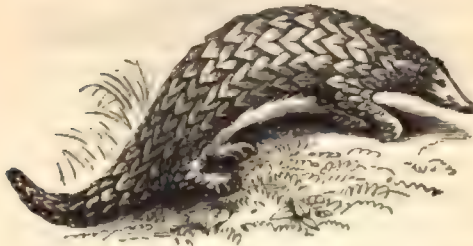


FIG. 11. PANGOLIN.

birds, todies, and mot-mots. No less typical are the macaws, the curious curassows and tinamous, the sun bitterns and the horned screamers; and the humming-birds are likewise among the veritable gems of South American ornithology.

The humming-birds, ranging from Sitka to Patagonia, from the plains to the towering heights of the Andes, are absolutely confined to the New World. "No naturalist," says Mr. Wallace, "can study

peculiar Neotropical birds as the *Cariama* of Brazil, and horned screamers, we see types of birds, either between other families, or standing solitary and isolated, testifying again by these peculiarities of structure to a time which has passed since their evolution from some now extinct type.

Reptiles of the region are numerous and peculiar, and the mammals equally varied. The true crocodiles and the New World alligators exist in this region, and the tortoises attain considerable development in this region. The tailed newts are well-nigh everywhere; frogs and toads are abundant; and the fishes of America present us with numerous types, many of the species and genera at least being confined to the waters of the area. Central America, as might be expected, shows less clearly the characteristic features of the southern portion of the continent. Here we find a commingling of Nearctic with Neotropical forms, but the former predominate, and as far north as Mexico we may trace the presence of monkeys and armadillos of the southern region.

In the case of the West Indian islands, forming the *Antillean* sub-division of the Neotropical province, however, we meet with greater differences from the fauna of the continent. No better instance of the value of a nevertheless logical and scientific classification, for biological purposes, of the West Indies, Jamaica, Porto Rico, St.

Their affinity to the continent in the matter of their botany and zoology, and their wide divergence from the other West India Islands, point clearly to their relatively late detachment from the South American coasts. Their constitution as islands was attained, in other words, at a date much more recent than that at which the other islands of the group received their status as independent lands. Of Trinidad and its neighbouring islets nothing peculiar in a zoological sense can be detailed. We may, therefore, turn to the typical West Indies themselves.

Rich in vegetation and all that contributes to the support of animal life, the West Indies are poor in representatives of the higher groups. But they compensate the zoological mind for poverty in numbers by peculiarities of type. No apes or carnivora are native to the West Indies, and the characteristic edentates of South America—the sloths, ant-eaters, and armadillos—are likewise wholly absent. But bats are abundant, and the rodents are peculiar. *Capromys*, one of these rodents, inhabits Cuba, Jamaica; and *Plagiodontia* is found in Hayti alone. These two genera are thus exclusively limited to the West Indies. In addition, an agouti is found in St. Vincent, and other islands; and a rare species of mouse (*Hesperomys*) is found in Hayti and Martinique. If the West Indian rodents are peculiar, so likewise are the Insectivora belonging to the curious genus *Solenodon*. Two species of *Solenodon* occur, one in Cuba, the other in Hayti. These animals are allied to the Madagascar “tenrecs.” They possess an extremely elongated nose, a long and scaly tail, and powerful claws. The fur is coarse, and the teeth are peculiar in some respects.

The entire zoological history of the West Indian Islands tends to show their distinctness as a biological region. Their fauna bears a decidedly Neotropical character in its essential details, but it is likewise a fauna which has undergone extensive modification through a long separation from the ancient mainland of which these islands once formed part.

The biological divisions of the globe having thus been detailed the task of investigating the causes which have wrought out the existing distribution of life on its surface yet remains. These preliminary studies form the material facts whereupon we may erect a solid hypothesis concerning the means whereby the living population of the earth has been modified, assorted, and arranged. We may accordingly marshal the facts in due order, that we may connect them by a theoretical bond—using hypothesis, thus legitimately, as a *guide to the discovery of truth*.

ANDREW WILSON.

THE WAR OF THE WARTBURG.

IT is no stirring record of knightly prowess, no thrilling narrative of hand-to-hand combat between mail-clad warriors, that we purpose to draw from the obscurity of distant centuries. The War of the Wartburg is a bloodless war. The cries of the dying and the wounded shall not strike our ears, our eyes shall not behold the glittering pageant of the tented field. The noble hall of the Thuringian hill-fortress is the scene of the exploits which we shall recall. Our heroes are the minstrels whom the munificence of Landgraf Hermann has attracted to his court; their only weapon the German "Schwalbe," identical with our Irish harp. But perhaps the strangest feature of all in this unique war is that the champions do not fight for their own glory. The question at issue between them is not their own worth or their own superiority; the virtues and the excellence of their respective patrons, of the enlightened and munificent princes whose favour they have enjoyed, and whose gifts they have received, supply a nobler and more generous theme.

The combatants are eight in number. Their names, in the order in which they enter the lists, and in which we shall briefly introduce them, are Heinrich von Osterdingen, Walther von der Vogelweide, the Worthy Notary, Biterolf, Reinmar, Wolfran von Eschenbach, and lastly Klingsor.

The name of Osterdingen is not unfamiliar in German literature. Not only has the attempt been made to prove him the author of this Wartburgkrieg, it has also been endeavoured at various times to connect him with the Nibelungen Lied, with Laurin, and with the Rosengarten. Unfortunately for these hypotheses, the existence of such a person as Heinrich von Osterdingen has never been satisfactorily proved. Indeed, the strongest, we might almost say the only, argument in support of it, used to be deduced from his appearance in the present poem. But this was so palpable a begging of the question that Osterdingen has come to be looked upon as a purely mythical character. In point of fact, it matters little which view we favour. Whether he actually lived in the flesh or whether he be a mere creature of the imagination, the practical result is the

same. His name is all that has come down to us. With Walther von der Vogelweide we are better acquainted. Born, probably, in Tyrol, between 1160 and 1170, he left the "Vogelweide"—the bird-preserve—from which his family derived its name, for the court of Vienna, where he became famous as a Minnesinger. Austria and Thüringen are the two places where most of his life, with the exception of the years during which he wandered in true minstrel-fashion, was spent. It is of him that a charming tradition relates that—

He gave the monks his treasures,
Gave them all with this behest :
They should feed the birds at noon-tide,
Daily on his place of rest.

The part which he sustains, though not altogether consistent with the frank and manly spirit which breathes in his works, is in perfect harmony with the more superficial details of his life. There can be no doubt that the author of the Wartburgkrieg was well acquainted with the career of Walther von der Vogelweide.

With the "Worthy Notary" we return to the regions of uncertainty and conjecture. In the poem he appears as "der tugendhafter Schreiber." By a literal translation of the words, he is known in English by the style of "the virtuous writer." But Grimm, an authority that few will question on points of philology, is of opinion that "tugendhaft" is merely equivalent to "laudabilis" or "honestus," the official epithet applied to the "notarius" or "protonotarius" in the Middle Ages. There are still extant a number of lyrics attributed to a "tugendhafter Schreiber." But, if the title did not belong to any one individual, if it was common to all the members of at least one branch of the legal profession, there can be no proof that the Worthy Notary of the songs is also the "Worthy Notary" of the Krieg, no proof unless it be that the rod of Aaron blossomed but once. The Chronicles which record the contest of the Wartburg have given the Schreiber the name of Henry. As the Thuringian acts and legal documents for the first forty years of the thirteenth century repeatedly make mention of Henricus scriptor, Henricus notarius, Henricus protonotarius, there is reason to assume that the Chronicles are correct. With this one slight fact about the poetical notary we must perforce rest satisfied. Neither history nor legend has anything further to record about him.

All that can be ascertained in connection with Biterolf does not extend greatly beyond the few facts which may be gathered from the poem in which he figures. He is there represented as belonging to the *Grafschaft* or county of Henneberg, and as having received

knighthood from the Graf whose praises he is made to celebrate. Rudolf von Ems, in his *Alexandreis*, refers to another poem on the same subject by a poet whom he called Biterolf. Whether the author who in reality recorded the high deeds of the son of Philip is identical with the minstrel who, in the *Wartburgkrieg*, celebrates the valour of the Graf von Henneberg, cannot be decided. The fact that Rudolf himself resided for a considerable time at the court of Hermann, and that he may there have made the acquaintance of Biterolf, whom he calls his friend, at least lends plausibility to the assumption. Moreover, unless the Henneberger knight is also to be regarded as a myth, it is only reasonable to believe that his presence amongst the minstrels of the Wartburg was due to some poetical merits of his own.

In endeavouring to prove the identity of Reinmar we are met by a difficulty of a different nature. Amongst the poets who flourished at the end of the twelfth and at the beginning of the thirteenth century we find two of the name of Reinmar. One of them is distinguished as Reinmar the Elder, the other as Reinmar von Zweter. In the manuscripts the two names are confused, so that it is not possible to determine which the poet meant. Possibly, indeed, the same confusion existed in his mind, and he may have used the names of two distinct authors under the impression that they belonged to one and the same person. Strict chronology points to Reinmar the Elder, surnamed the Nightingale of Hagenau. He was at the court of Vienna when Walther von der Vogelweide first appeared at it. For a time the two poets were connected, first as master and pupil, later as friends and colleagues. Their friendship, however, was not lasting, as Walther records in a poem written on the death of Reinmar, to whom, nevertheless, he accords a generous and just tribute of praise. It may be mentioned that, as far as we know, neither of the Reinmars was ever at the court of Hermann of Thüringen.

Of Wolfran we can say but little. He lived and wrote. Familiar as is his name in literature, his career, if indeed we can abstract the poet's life from his works, has left no trace in history. He was born at Eschenbach, a small town near Anspach. His family was noble but poor. Being but a younger son, he left the paternal manor at an early age, and devoted himself to poetry. The heroic poems "Willehalm" and "Titurel" are his. But it is especially to his "Parcival" that he owes his fame—a fame which borrows nothing from antiquity. No poet—the Laureate not excepted—has treated the Graal legend in a more artistic and, above all, in a more delicate manner. Wolfran is the central figure of the *Wartburgkrieg*. The whole poem breathes

his spirit, it is a sincere tribute of admiration to him, it might almost be styled his apotheosis.

The next character—the last we have to notice—is wholly mythical. Klingsor, who in the *Krieg* figures as Wolfran's opponent is no other than Klinschor, the wizard of Castle Marvell, Wolfran's own creation. In the "*Parcival*," it is true, Klinschor appears only as a magician, whilst at Eisenach he is a poet as well. Further, though the sorcerer whose spells Gawein breaks is represented as an Italian, in the later poem he is announced as Hungarian, "aus Ungarland." This transformation of the name of a minstrel to a magician is, however, not unnatural. Indeed, it may be considered a necessity of the part which he bears. Appearing in his own person, as the opponent of Wolfran, the chief poet of the age, it was only fitting that he should possess poetical qualifications in addition to his magic art. Moreover, his name Klingsœere, in its unabridged form—has the meaning of "singer" or "player," and is easily lent itself to the metamorphosis, if it did not actually suggest it. According to the chronicles which relate the details of the Wartburgkrieg as genuine historical events, Klingsor, whilst at the court of Thüringen, prophesied the birth of St. Elizabeth. As the saint, in whose favour heaven is made to work a miracle—deceiving her husband by changing into roses the loaves which she was distributing—was an Hungarian princess, the magician who predicted her birth and career became associated, in the legend, with her native country. It is doubtless in this manner that the Italian sorcerer of Château Merveil figures as Klingsor aus Ungarland.

Those who are acquainted with Wagner's *Tannhäuser* will, doubtless, have noticed that the poets—real and mythical—that figure in the Wartburgkrieg are the same who, in the opera, appear as the rivals of Venus's favoured bard. Originally, however, the two legends are entirely independent and distinct from each other. The *Wartburg* contains no allusion to *Tannhäuser*. On the other hand, the old ballads which narrate *Tannhäuser's* adventures—his intimacy with Venus, his repentance, his appeal to Urban IV., his rejection, and his return to the goddess's cavern—make no mention either of the Thüringian court or of the rival poets. The fusion of the two legends is due to a later century, and to reasons which it is not altogether impossible to trace, or at least to surmise. The *Minnesinger* *Tanhuser*, on whose vividly amorous lays legend has probably based the adventures of the mythical *Tannhäuser* in the Venus-mountain, flourished about the beginning of the thirteenth century. It was, therefore, but natural, considering the intrinsic

worth of his known productions, that tradition should have associated him with his famous contemporaries at the court of Thüringen. The inducement to do this was the greater that the Hörselberg, within which was the fabled palace of the Queen of Love, is situated in the neighbourhood of Eisenach, with which more than one legend connects it. The two myths having thus become amalgamated, it was an almost necessary consequence that the poetical contest of the Wartburg should be modified so as to give scope for the development of Tannhäuser's character. The poetical effect, it must be allowed, is in no wise diminished by the substitution of the praises of Venus for those of Hermann, or of Leopold, in a debate in which the disputants are confessedly the bards of love, but it produces a new legend which is neither that of Tannhäuser nor of the War of the Wartburg.

In the hall of the Wartburg, the same which Hoffman has adorned with scenes from the legendary contest, are assembled the Landgraf and his wife, with her eight maids of honour, daughters of the house of Abenberg, and a courtly retinue of fair women and brave men. It is not a mere social gathering. They have come together to hear the rival minstrels assert and uphold the merits of their respective patrons.

Heinrich von Osterdingen opens the contest. He does so in a metre which is, in itself, a tribute to the Landgraf whose claims he is about to question, "in the tone of the noble Prince of Thüringen." His challenge is to all living bards. He "places on the scale" the virtues of the Duke of Austria, Leopold VII., though his name is not mentioned, and defies his opponents to equal them with the virtues not of any one merely, but of any three princes. Should he be beaten, he will give himself up to be treated like a common thief. Walther von der Vogelweide is the first to pick up the gauntlet. He is moved with indignation at Osterdingen's presumption. Though he has himself received favours at the hands of the Duke of Austria, he renounces the hope of future patronage rather than put up with the Austrian champion's arrogance. Knowing as we do the obligations under which Walther lay to Landgraf Hermann, and recalling the gratitude towards him so often and so eloquently expressed in his verse, more especially in that passage which we may consider the key-note of the whole poem—

Ich bin des milten lantgrâven ingesinde :
Ez ist mîn site, daz man mich iemer bl den türsten vînde.
Die andern fürsten alle sind vil milte, jedoch
Sô stâtelichen niht : er was ez ê und ist ez noch :

—remembering this, we say, we are surprised to find him declaring, not for the Thuringian Prince, but for the King of France. If the claims of a foreign prince were to be brought forward, Walther was, in truth, eminently suited for the task. His travels, as he tells us himself, had extended from the Muor to the Seine, and he was therefore qualified by experience to speak of the virtues of the French king, Philip Augustus, whose name, however, like that of Leopold, is left to the reader's knowledge of contemporary history. Stranger still does it seem that at the same time that Walther accepts the challenge, names the prince whom he means to champion, and agrees to the penalty of halter and axe, he postpones the settlement of the dispute to the morrow, alleging as a reason that the executioner is not present.

The Schreiber is more eager for the fray. He will not hear of even twenty-four hours' respite. For him, as might naturally be supposed, the Landgraf is the model of all princely virtues. The "Dürenge," as the old spelling gives it, is compared to Alexander, the minstrel's ideal of munificence. Hermann, his champion asserts, is a lion for his enemies, but towards his friends he is an eagle of generosity. It may be here explained that the eagle is the recognised emblem of liberality—the much-praised Milde—because, as the eagle soars above other birds, so liberality soars above all other virtues.

Before the contest can proceed any further, umpires have still to be chosen. It is left to Osterdingen to appoint them, as is but just, he being the challenger. His choice falls on two to whom assuredly no objection can be found, on Reinmar and the wise Eschenbach, and he calls upon the Prince to administer the oath to them. Then he begins in earnest to descant on the virtues of Leopold. The noble Duke's greatest joy, sings his champion, is to do good. He does not shun earthly pleasures, but it is more especially for God's honour here below that he strives. He shapes his life according to the teaching of the priests, and a crown is being woven for him in heaven. Women are his heart's delight; he always meets them with friendly greeting, and honours them for the sake of the Holy Maid that gave birth to the Saviour. He succours the oppressed, but he is inflexible towards his enemies. He is as a child. Whatever other virtues the wisest mind can think of, adorn him also.

Seven princes, retorts the Schreiber, possess the privilege of electing the King of Rome, but these choose him whom Hermann of Thüringen appoints. If he finds that the king is too tall or too short, or that he does not bring sufficient happiness to the world at

large or to the empire in particular, he sets him aside and puts another in his stead. As an example of this Otto is cited. He was deprived of empire and honour through the Landgraf's instrumentality and influence. Heinrich von Ofterdingen, scornfully adds the Schreiber, would do better to keep silence, and not compare together things incomparable. He should remember that when a hound starts on a false scent, he is liable to punishment at the hands of his master.

Ofterdingen, as may be imagined, is not content to allow the superiority of the Schreiber as implied in the figure. He acknowledges no master. Reinmar and Eschenbach he recognises as his judges. With these he now associates Herr Walther, whose excellence in song is famous through the whole German land. Here we discover why, at the outset, Walther was not made to take an active part in the contest. It was intended that later he should assume the duties of umpire. For this reason, likewise, he selected the King of France. Evidently, in Ofterdingen's mind, the choice of a foreigner has virtually excluded Walther from the contest, and allows him to form an unbiassed judgment as to the claims of the native princes. The Schreiber, doubtless coinciding in these views, sees no cause to challenge his opponent's further choice. He accepts the third judge, and bids him call in Stempel, the executioner of Eisenach, with his broadsword.

The contest is resumed, and Ofterdingen continues his eulogy of "the noble Austrian hero whom all the world praises, even from the crown of his head to the sole of his feet." Compared with him all other princes are as a cloud, whilst he is like the sun. So great is his generosity that, whenever he bestows on any noble the gift of a suit of clothes, he never omits to send a dress for the wife as well, that she, too, may say, "This has the rich prince given to me." Can any three, yea, any four, princes equal such virtue? The Schreiber does not deny Leopold's munificence, but is ready with the reply that to whatever degree the Duke or any other prince may possess this excellent quality, it is only in imitation of the one supreme model, the Landgraf of Thüringen. To this the Austrian minstrel can answer only by asserting in still more emphatic terms the generosity of his patron, about whom the friendless swarm as do the bees about the hive in which their real queen is, and whom he likens to an eagle, whilst other sovereigns are but falcons. This figure, be it parenthetically observed, is a departure from the mythology of the heroic cycle, in which the eagle is considered as subordinate to the falcon. In their metamorphoses the gods are

always represented as assuming the shape of the latter, mere hero of the former bird.

Biterolf, no longer able to curb his indignation, rushes to the fray "with the eagerness of a raven pouncing on a carcass." Osterdingen's presumptuous challenge reminds him of the cat that wooed the sun, but in the sequel was content to wed a mouse-eating creature of his own kind. The adventures of the ambitious cat to which the poet here makes a passing allusion, are more fully related by two old poets, Stricker and Herrand von Vildonie. The sun—it may be well to remember that in German "die Sonne" is of the softer sex—to whom the cat pays his addresses, declines the honour in favour of the cloud that obscures it. The cloud passes him on to the wind that drives it. The wind recommends the wall that breaks its force; whilst in its turn, the wall urges the higher claims of the mouse that gnaws its foundation. Thus the cat that would a-wooing go gradually descends from his high aspirations to a plain alliance with the tabby that eats the mouse.

Osterdingen accepts the simile. He is willing to be the cat. In that case, however, his rivals are the vile vermin that he will scatter right and left, and Biterolf—the biting wolf—sinks to the level of a gnawing mouse.

The Graf von Henneberg is the theme of Biterolf's praise, not indeed, as opposed to Hermann, but as another of the three who are "to outweigh" Leopold. Who was at Cologne on that memorable day when the Landgraf's attempt to assert the precedence of the Abbot of Fulda over the Bishop resulted in a bloody fray? Did not the Henneberger fight like a lion for the Landgraf who, in the struggle, was struck down and carried away as dead? Nor is courage the Graf's only virtue. It is accompanied by modesty, decency, fidelity, liberality, and mercy. Hermann himself, called upon to give his testimony, allows that the Henneberger's courage might well deserve an empire. But Osterdingen thinks but lightly of Biterolf's panegyric, as he also affects to ignore, or at least to put aside, the French King whom Walther has set up as a rival of the Duke of Austria. With ironical condescension, he himself mentions a third German prince, the Markgraf of Brandenburg, to help his opponents out of their difficulty. But, even then, he maintains Leopold excels them all. Had God given him four eyes and four hands, these would not meet the needs of his courage and of his liberality. What a noble example of both was given to the world in the battle with the Hungarian King! As the Duke, with his shield on his arm, was going out to meet the foe, his last recommendation

to his treasurer was to redeem the minstrels' pledges—the pledges which the innkeepers of little faith exacted from the wandering brotherhood. Let the three be compared to him now!

At this point Herr Reinmar, forgetting the impartiality of his office, and ready to stamp with anger, "like a child to whom an egg has been refused," bursts out into an indignant protest against Osterdingen's presumptuous and impertinent folly. Neither the Austrian nor any other prince, he emphatically asserts, can equal the virtues of the "Dürenge." Were other princes angels, Hermann would be their God. The wise Wolfran, too, lays aside his judicial character, and goes over to the side of the Landgraf, reminding Osterdingen of the punishment inflicted on the angels because of their overweening pride. Osterdingen does not even deign to reply to Reinmar's attacks. As to Wolfran, he welcomes his entry into the lists, and promises him a reception worthy of the warriors of the "Wälchalm," half hinting a doubt as to the orthodoxy of the poet, whose praise is bestowed as impartially on the heathen as on the Christian heroes of his poems.

The contest has now reached a point where it can be decided only by Walther von der Vogelweide. It is he who now comes forward. His first words are a recantation of the judgment which he has prematurely uttered, and an expression of sorrow for having thus severed himself from the Duke of Austria. To all princes he now gives the glory of the stars, the best of them being, at most, on an equality with the morning star. One king and two princes, however, are superior even to this. Indeed, one of these three he would compare to the very sun. And who, he asks, is this one? Osterdingen, who has already made use of this very figure to express the Duke of Austria's pre-eminence, does not hesitate again to claim for his patron the supreme excellence implied in a comparison with the orb of day. But now it appears that Walther has throughout been sustaining an assumed character. The whole of his conduct at once becomes intelligible. It has been shaped, with more skill than sincerity, so as to deceive Osterdingen, and to lead him into the snare prepared for him. He has now brought his praise to the highest point. He stands pledged to his comparison with the sun. But Walther is ready with a victorious rejoinder. Leopold, he allows, may be as the sun amongst the paler stars, but Hermann is as the very day itself. This would scarcely meet our modern views, but it is strictly in accordance with what we may call the poetical astronomy of the Middle Ages. The light of day and that of the sun were not considered to be identical. Incomprehensible as the

distinction may seem to us, we must bear in mind that it is drawn from the Bible. According to the first chapter of Genesis, "Let there be light" was the fiat of the first day of creation. "The greater light to rule the day" was the work of the fourth. In the heathen mythology of the North, a similar distinction is to be traced. Baldur, the light-god, has a chariot of his own, which precedes that of the sun.

Walther's victory is acknowledged by Osterdingen. But he complains of the device by which he has been misled, and protests that he has been beaten with "false dice." Even now he will not allow that his cause is lost. He demands permission to summon to his assistance Klingsor, the Hungarian magician. At first, indeed, his opponents refuse to accede to his request, and loudly clamour for his death. At the intercession of the Princess, however, they abandon their cruel resolve of insisting on the immediate infliction of the penalty incurred by the conquered minstrel. They even consent that he should go to Hungary in search of his defender, and bring him to Eisenach. Here the first part ends. The concluding words afford us a good clue as to the place whence the Wartburg-krieg has come: "Meantimè at Mainz much of the lucid Rhine shall flow."

Vür Megenze gât
Die wile des klären Rines harte vil.

The poem does not state what length of time Osterdingen was to be allowed for his journey to Hungary and back. Neither does it make any mention of the events which are supposed to take place between the two parts. The Chronicles are more explicit. From these we are able to gather a few details which, besides being interesting in themselves, will also serve as a connecting link. Osterdingen, we are informed, was granted a whole year for his quest after Klingsor. This is strictly according to precedent, not only in Northern Mythology, but, as we may remember, in the more familiar Arabian Nights. It is also a usual, almost a necessary circumstance, that the whole twelvemonth should be allowed to elapse to the very last day, and that then the journey homewards should be accomplished by supernatural means. Originally, in the old Teutonic legends, it was effected by the instrumentality of a god, later by the help of a spirit, good or evil, as circumstances seemed to warrant. In conformity with these legendary bye-laws, Osterdingen, to whom the Landgraf has given letters of introduction to Klingsor, is detained by the magician till the very eve of the day on which, according to agreement, he is to resume the contest at the Wartburg. The poet, whose

honour and life are at stake, is naturally a prey to the greatest anxiety. Klingsor endeavours to reassure him, telling him that they have a light chariot and swift horses, and that they will soon cover the space between Hungary and Thüringen. Even this fails to banish fear from Osterdingen's mind; indeed, he is so troubled that it is only under the influence of an opiate administered by the magician that he is able to fall asleep. Whilst in a state of unconsciousness produced by the draught, he is placed upon a bed and covered over with a leather counterpane—evidently manufactured out of Odin's cloak. Klingsor with two attendants takes his place beside the sleeper, then they are all swiftly and gently transported in one night from Hungary to Eisenach, and safely deposited in a room of the inn kept by Heinrich Hellegreve, and situated near the St. George gate, on the left-hand side going out of the town. In the morning Osterdingen awakes as the watchman from the top of the tower is calling out daybreak, and the bell of St. George's ringing for early mass. He perceives that he is in Eisenach, but how he has got there he can explain neither to himself nor to those that question him.

Returning to our poem, we find the second part opening with Klingsor's appearance before the Landgraf. This is brought about in a manner widely different both from the anticipations raised by the first part and from the chronicled records; to this, however, we shall return later. Just now, we have merely to give a summary of the poem in its present shape. A pavilion has been erected near the water's edge for the noble "Dürenge." It is there that a hawker presents himself, offering for sale a wondrous article "never seen of eyes and never to be seen," which, out of curiosity, Hermann is willing to buy, if the price be within his reach. But that which Klingsor—he is the hawker—brings with him is more costly than gold, more precious than jewels. It is a riddle-poem. Whoever shall solve the enigma is to be recognised as a master in his art. If he fail in any point, "if he break one strand of the rope," he is to be branded as a bungler. Eschenbach stands in high repute for wisdom, and, Klingsor has heard, excels every "lay mouth" in his legends. Him, therefore, he challenges to explain the riddle. Wolfran, undaunted by Klingsor's boasting, and trusting not to his own knowledge but to the help of God, in whose hand is victory, demands to hear the enigma. His adversary proposes it as follows:—A father cried to his child that lay asleep on the edge of a lake: "Awake, my child! It is from kindness that I rouse you; the wind rages over the waters, night is coming on; awake, my child! Were I to lose you, my sorrow would know no comfort." Still the child continued to

sleep. Then the father drew near and struck him with a rod, saying: "Awake before it is too late;" but this, too, was of no avail. Thereupon the father took a horn and sounding it loudly in the sleeper's ear, cried out: "Awake at last, you fool!" Still the child slept on. Out of very love the father seized the child by his curly hair and smote him on the cheek; and still he slept. Then seeing that neither noise nor blows were of use, the father threw a cudgel at him, saying: "Receive this messenger which I send you, though you have Ecidemon for your guide, you have followed the advice of the Lynx that has seduced you into this fatal sleep. And the dam gave way, and the sounding waters rushed in. The explanation, given unhesitatingly and exhaustively by Wolfran shows that the sleeping child is the sinner, the anxious father God Most High. The horn sounded in the sleeper's ear, represents "the master clerics," whilst the blows are God's warnings sent either indirectly through the misfortune or the death of friends, or directly through illness. The cudgel thrown as a last resource is death, by which the sinner is driven to repentance if he would escape hell. Ecidemon and the Lynx are respectively the guardian angel and the evil spirit. The lake symbolizes futurity. The winds that blow over it are the days of life, and the bank on which the sinner is sleeping is time. Klingsor's astonishment is great at the unexpected ease with which Wolfran has solved the enigma. He attributes it to supernatural aid, either of an angel or of a spirit of darkness, hinting, however, in no obscure terms, his own suspicion. Nothing daunted by his failure, he is ready with another riddle, that of the King's Daughter, by which is meant man's soul. Wolfran expounds it with such wisdom that Walther von der Vogelweide, who here reappears for a while, bursts into tears of admiration. Then without a word of warning, Klingsor proposes a third riddle, that of the Lost Sheep; and immediately after this, the rivals alternately describe the wonders and portents of the last day, basing the whole on a revelation made to St. Brandon. After this follow in quick succession the riddles of Solomon's Throne, which symbolizes the Virgin, of the Cross, and of the Creation of Lucifer. So far Wolfran has been content to show his skill and wisdom by solving with ease Klingsor's most intricate enigmas. But now, he turns on his antagonist and assumes the offensive. This he does in the eighth riddle, which refers to the King of the Angles, and which he solves himself, though without any comment that can lead us to suppose that Klingsor has allowed his inability to do so. The ninth riddle also is proposed by Wolfran; it is that of the Huntsman that figures Death. Before

Klingsor can proceed to give the solution, Osterdingen raises his voice in loud and bitter complaint against him, upbraiding him for the little assistance he has so far rendered, declaring that he will plead his own cause himself, and demanding that Stempel be called in and stand in readiness to execute judgment on the conquered. At the same time, as his former judges have become his opponents, he calls for a new umpire, and himself names the Graf von Kefernberg. He is appeased by Klingsor, who, after having satisfied Wolfran and also explained from whom he has acquired the supernatural knowledge of which he makes no secret, again comes forward with the tenth and last riddle. A Quatre, of which each single Ace has its own special symbol, contains a Tray, but is in its turn contained by the Tray. The Quatre typifies the four gospels, respectively represented by an ox, a lion, an eagle, and a man. These four gospels are, as it were, the foundation on which is built the doctrine of the Trinity, whilst they, on the other hand, derive all their authority from the Trinity.

Klingsor's suspicions, as we have seen, were roused by Wolfran's ready solution of the first enigma. He is now convinced that his adversary is no "layman," but derives his wisdom from the study of Astronomy, by which, of course, is meant Astrology. If Wolfran will not confess that such is the case, the devil Nasion shall be summoned from Toledo, or even from Greece, to wring the truth from him. Confident, however, in the innocence of his knowledge, he dares Klingsor and his spirit to do their worst. Without any indication of a change of scene, Wolfran and Nasion are now the two actors. In the Chronicles we read that it was at night, and when he had retired to the house of Gotschalg with whom he was lodging, that Wolfran was submitted to a final test by the diabolical examiner. Interrogated as to the nature of the firmament, the course of the stars, and the influence of the planets, he is unable to give an answer. In this examination, however, failure is success. The devil, wroth at having been summoned on such a fool's errand, declares that Wolfran is but a "layman" and a "Schnippschnapp," and with his finger he writes this on the stone, that retains the impression as easily as would dough. A sign of the cross made by Wolfran drives the devil away and ends the interview.

In the next section a spirit—one of those who, though fallen from heaven, have not been relegated to the bottomless pit—seems to have been raised by Klingsor. All that he does, however, is to throw down a letter containing a long and sharp tirade against the avarice and simony of the clergy. What is called the fourth part follows this up with an *address to two contemporaries*, the Bishop

of Cologne and Johann von Zernin, who, it appears, raised their voices like lions against the abuses condemned in the foregoing epistle.

But for Biterolf and the Schreiber, who now re-appear, the fifth division would be still less connected with the preceding parts of the poem. Biterolf, overcome with grief at the death of two princes, the Landgraf of Thüringen and the Graf of Henneberg, from the latter of whom he received his knighthood, wishes to raise his weak voice in a tribute of praise to their virtues. He compares himself to a priest burying his own father—however great his grief, it must not prevent him from performing the holy office. The Schreiber is called upon to join in supplication over the grave of the noble dead. Alternating their prayers, they beg of God that the souls of their princely benefactors may not be condemned to the torments of hell, and that mercy may temper justice. The concluding strophes are taken up with the details of a vision which is supposed to show the fulfilment of their pious wishes.

Biterolf and the Schreiber are now followed by Wolfran and Klingsor, who introduce a string of legends bearing no reference to the long-forgotten question raised in the first part, and having very slight connection with each other. St. Brandon, the wandering Irishman of legendary fame; the Basiant of Constantinople; Zabulon of Babylon, half a heathen, half a Jew; Aristotle with his familiar Klestronis imprisoned in the ruby of a ring, from which, however, he helps King Tirol to win a game of chess, on the result of which the royal player has staked his head; the magnet-mountain with its sirens, crocodiles, and vultures; the magician Virgil; the dwarf kings Sinnels and Laurin—all these are paraded before the astonished reader, then disappear as suddenly and as unexpectedly as they were called up. Two strophes of undoubted morality, but totally out of place, close the strange medley which literature knows as the War of the Wartburg.

It is apparent, even from the necessarily brief abstract which we have given of it, that the Wartburgkrieg, as it now stands, or rather as editors have compiled it from the various manuscripts or fragments of manuscripts bearing the title, cannot be looked upon as a harmonious and symmetrical whole. In our opinion, it is perfectly safe to dismiss summarily all that follows Wolfran's temptation, or rather examination, by Nasion. That the names of the various personages of the first part recur in the subsequent divisions, that reference is sometimes made to the question originally at issue, and that the metre—either the tone of the noble Lord of Thüringen or

"Klingsor's black tone"—is used in the supposed continuations, these facts can scarcely be of great value as proofs of the authenticity of the unconnected and disjointed fragments which have been clumsily tacked on to the original poem. The first part of the Wartburgkrieg bears a certain resemblance to a class of poems which abound in the poetry of Provence, as well as the north of France, under the name of "tensons" or "jeux partis." These, however, were usually the discussion of some point of gallantry, whereas our poem treats of the respective merits of art-loving princes. Furthermore, these alternating poems, if we may give them this name, were usually the productions of several poets—real discussions, and not the words and thoughts of one author placed in the mouth of imaginary characters. That such is the case with our Krieg cannot for a moment be assumed. The mythical and even supernatural minstrels that figure in it preclude any such theory. Out of these "tensons" there arose poems composed by one author, but thrown into the shape of a discussion—we use the term as distinct from mere dialogue. Perhaps better known than any other argumentative poem of this kind is the discussion in which St. Sylvester defends Christianity against the attacks of twelve wise Jews. The machinery of these poems was usually taken from the real combats of the lists. Thus, at the opening of our Krieg, umpires are appointed, and even the Grieszwart—an official corresponding to the clerk of the course in modern contests of another kind—is also mentioned. In one striking and important feature, however, the contest of the Wartburg stands unique. It is the only poem of the kind in which a penalty, and that no less than death, is incurred by the conquered. In reality this is only carrying out the resemblance between the poetical and the physical combat. In the less friendly encounters of knighthood, more particularly in those which were regarded as an appeal to the judgment of God, death was not unfrequently the punishment of defeat. In all poems but the Wartburgkrieg, however, the parallel stops short of the tragical conclusion. It was a bold but a happy idea to carry it out here. It undoubtedly raises the interest in the contest to a far higher pitch, just as the death-penalty attached to the ordeal by battle invested it with greater importance than mere jousts possessed.

As regards the second part of the Wartburgkrieg, that in which the riddles are introduced, it is clear that there interpolators have been busy. The accumulation of enigma upon enigma, and more particularly the introduction of those which Wolfran proposes, are in direct contradiction to the whole plan and spirit of the poem.

Assuming that this second part is really a genuine continuation of the first, it should introduce Klingsor for the purpose of defending Osterdingen, over whom the penalty of death was left hanging. At the outset it is a suspicious circumstance that the magician's defence does not assume the shape either of a direct defence of Osterdingen or of a direct proof of the original assertion. Indeed, we are even given to understand that it is for the purpose of rescuing Osterdingen that Klingsor proposes the riddle which he demands of Wolfran to solve. When, contrary to expectation, the solution is readily given, the hint is at once thrown out that diabolical agency is at work. Yet, in spite of this, the riddle follows riddle, and even Klingsor, who does not attempt to conceal his necromancy, is called upon to rede his share. Nine new enigmas are required to confirm the magician's suspicions, and it is only then that the victor, Wolfran, is submitted to the final test at the hands of Nasion. This is in direct opposition to the original conception of the poem. The doubts awakened by the prompt and correct explanation of the first enigma allowed of a second trial; but after that, so far as such a test was concerned, the matter was necessarily at an end. Klingsor was clearly powerless to overcome Wolfran. It needed no further proof on the latter's part to establish that. It was then time to determine whether, indeed, the poet owed his success to his own knowledge or to diabolical help and inspiration. After a second riddle the appearance of Klingsor's familiar was fully warranted and concluded the contest, in so far, at least, as it affected Wolfran. To hold, therefore, that, before proceeding to an examination of the connection between the two parts, it is necessary to set aside eight of the ten riddles, to reduce them to two—the first and any other of the subsequent ones that the manuscripts warrant us in assuming to be connected with it. To enter upon this secondary question would require a discussion of texts and authorities quite beyond our scope. It must suffice to say that the evidence of authenticity is in favour of the last riddle, that of the Gospels and the Trinity.

It is to be feared, however, that neither this pruning down nor any manipulation to which it could be subjected, can give this so-called second part of the Wartburgkrieg even the outward appearance of a natural sequel to the first. There is no denying that, as we have it, the first part is but a fragment. But this difficulty is in some wise met by the addition of the riddles, whether we accept all or only two of them. They do not further the action of the poem. At Nasion's interview with Wolfran matters stand precisely where they stood after Osterdingen's discomfiture. Nothing that Klingsor does

done can be understood as rescuing the vanquished poet from the doom he himself has fixed as the punishment of failure. We hold it, therefore, justifiable to reject an addition which does violence to the evident plan of the first part without rescuing it from its fragmentary state.

It cannot have escaped notice that there is a total absence of connection between the two parts of the Wartburgkrieg. At the end of the first, Osterdingen is granted permission to call in Klingsor to his help. From this, it is naturally expected that when the magician appears he will resume the contest and defend his client's thesis. Instead of proceeding in this manner, however, he makes his entry into the poem as an unknown hawk. For it is only later that we are made aware that the propounder of riddles is Klingsor. He does not announce himself as Osterdingen's defender. Indeed, he about whom the interest of the whole contest should centre, whose life is at stake, is entirely ignored. Further on he re-appears, and that in a most unnatural manner in stanzas which are generally recognised to be interpolations within the interpolation. But more than this, the death-penalty is not mentioned. Klingsor expressly states that if Wolfran succeeds in solving the enigma he shall be considered a "master." Evidently we are treading on different ground. But, again, why does Klingsor address himself to Wolfran? It is not he who has overcome Osterdingen. It is Walther von der Vogelweide. But he, assuredly a more important personage, at the conclusion of the first part, than Wolfran or any of the other combatants, appears but once, in a very doubtful passage, to express his admiration of Wolfran's wisdom. If, however, we be willing to set aside all attempt at connecting the two parts, and consequently to reject as interpolations every strophe that contains an allusion to the question mooted in the first part, it then becomes possible to establish a certain unity in the contest between Klingsor and Wolfran. The magician then appears, not as coming from Hungary, but directly out of the pages of "Parcival." As the representative of profane knowledge and vain science he is opposed to Wolfran, who, without erudition, by the mere strength and power of his faith in God, is able to overcome not only his human but also his supernatural adversary. Looked at in this light, the so-called second part shapes itself into a not unharmonious whole. In justice, however, we must allow that there is one objection to the view. The riddle-strife, if for convenience we may be allowed to translate the German expression, into which the second part of the Wartburgkrieg would thus resolve itself, is of the *remotest origin*. But wherever it appears, it is, so far

as we know, an inevitable condition that the combatants stake their life on the result. If we go back to Grecian mythology we see *Cædipus* threatened with death if he fail to rede the riddle proposed by the *Sphinx*, whilst his success brings about the destruction of the monster. In the Teutonic legends—in the *Wafthrudismal*, to mention but one example—*Odin* engages in a similar contest, and stakes his head on the event. In the riddle-strife which we would make of the so-called second part of the *Wartburgkrieg*, no penalty is incurred by failure. If we must account for this omission, we would do so on the ground that the poet, evidently inspired by a thoroughly Christian spirit, perhaps we ought to say by the spirit of Christianity, as opposed to the half-heathen principle which underlies the close of the ordinary riddle-strife, rejected the conclusion which custom prescribed, and, not unfittingly, terminated the victory of Christian over profane knowledge by *Wolfran's* sign of the cross.

To determine the authorship of the *Wartburgkrieg*, or rather of the disconnected fragments that have been strung together under that title, is an utter impossibility. The various theories that have been set up have not even plausibility to recommend them. The dates which it has been attempted to fix for the several sections range from 1216 to 1287. That the first part is the record of a real contest that took place in 1207, at the *Wartburg*, in presence of *Landgraf Hermann*, must be dismissed as a fiction. Even in the poem it is not a happy idea to represent him as present at a discussion of his own merits. To look upon this as an occurrence of real life would be little short of an absurdity.

The *Wartburgkrieg* has met with much praise and much censure. In the latter case, however, it has chiefly been from critics who looking upon it as a whole, have naturally been struck with the evident want of unity. If, however, we judge the separate parts on their own merits, we must allow them considerable poetical worth. They cannot, indeed, be placed on a level with the productions of the more important of the *Minnesingers*, of *Walther von der Vogelweide*, and of *Eschenbach*. But, on the other hand, their superiority to the poetry of the *Master-singers* whom they preceded can scarcely be questioned. As in point of time, so also in point of poetical worth the *Wartburgkrieg* may fittingly take its place between the *Minne-singers* of the twelfth and the *Master-singers* of the fourteenth century, between the Poetry of the Court and the Poetry of the Workshop.

LOUIS BARBÉ.

THE BUSCAPIÉ.

THE Buscapié is a literary curiosity, about the genuineness of which there was, some years ago, considerable discussion. Much learned dust was raised on both sides of the question, until it was laid, by public indifference, with a few drops of cold water. The matter in dispute was, shortly, this. A certain Adolfo de Castro published, three-and-thirty years before the present date, with a preliminary discourse and copious notes chiefly bibliographical, an opuscle which he declared to be the "Buscapié of Cervantes." That Cervantes had written a work bearing such a title seems to be generally admitted. It is at least mentioned by such authorities as Pellicer and Navarrete, though no printed copy of the work appears to have been known. The matter under the judge is whether or not the work published by De Castro is the genuine production of Cervantes. De Castro, of course, affirms that it is; Ticknor may be cited as a representative of those who entertain a contrary opinion. On the side of the former are the style of the work, its humour, its genius, and its invention; on that of the latter stand the circumstances that it is never mentioned by Cervantes himself, or by his contemporaries, and that, though written for so long a period, and at one time eagerly sought for among a certain portion of the literary world, it never attracted anybody's notice till the year 1848, when the Sr. Castro, then twenty-four years of age, published it at Cadiz. The primary concern of the present paper is with the work itself, which is so admirably written that even those who consider it apocryphal must allow its author a high intellectual rank, subject only to much the same moral abatement as that of the English Chatterton.

The subject, which no few of those who deny its genuineness admit not wanting in entertainment, is this: The author of the work, Cervantes or De Castro, riding on a hired mule to Toledo from Madrid, meets on his way a little hump-backed Bachelor, mounted on a middle-sized nag, lean, blind of one eye and not very sound on the other, saying his prayers at every opportunity, and so burdened with years and galls, that the mere sight of him made a body shiver. *His rider is scarcely in a more enviable plight. His*

short legs are bowed like the handles of a plough, or a couple of slices of melon ; but their deficiency of length is amply compensated by his nose, his mouth which extends from ear to ear, and his feet which take twelves in shoes—a circumstance, says the satirical author, in which we see the gracious liberality of Nature to mankind. Between the horseman and his steed a little dispute arises, which ends in the hump-backed Bachelor being for the sixth time on his tragic journey of that morning thrown to the ground. The author assists him to rise, and attempts to console him by animadverting on the sorry description of jade, the walking bag of bones, which he is attempting to ride. But the Bachelor warmly defends his beauty speaking of him as a high-spirited colt, somewhat, indeed, of a stomachful a mettle, but in all else unexceptionable. On the author pointing out the particulars of his defects, the Bachelor allows he may be right ; for himself, he thought otherwise, but he had been afflicted with short sight from his infancy, and had unfortunately lost his spectacles on his first fall on this ill-omened day. As he suffers considerably from his aching bones, and the “choler of the rays of rubicund Phœbus” is near its zenith, they agree to pass the noon under the shade of some tufted trees by the wayside, seated together on the bosom of their common mother.

There the graduate of Salamanca,—and not of Alcalá, which is not fit for poor students,—takes out of a leather purse a couple of books for their entertainment, one of spiritual verse, and one of simple prose. After a word or two about the former, “As for this other book,” says the humpback, taking up the volume in prose, “people here do not care two farthings for it. Its contents are nought but madness and folly, and other matters out of the way of reason and judgment. It is, in a word, a compendium of all the levities and improbable passages wherewith other books, injurious like it to the commonwealth, are crammed.” Upon which the author takes the work, opens it at random, and reads on one of its pages the Title of *The Ingenio Hidalgo*. Thereupon he remains a season in suspense like one assaulted by a sudden fear, and his voice is frozen in his throat. On recovering, he defends the book, declaring it to be one of sweet entertainment, and written in a very pretty style, and says that the author ought to be rewarded for his desire to banish from the commonwealth all idle chivalric romances. The Bachelor allows that there are yet to be found foolish people believing in knights-errant of the past, and their outrageous battles, and their righting of wrongs—“Would to God,” he adds in parenthesis, “I might meet one to right *this hump of mine*, which ought to have been righted long ago”—

steadfastly disbelieves in the existence of any chivalry of the present. What Florians or Palmerins, he asks, has the author of this book ever seen, armed *de cap à pied* just as if they stepped out of a piece of old tapestry in an inn, wronging what is right, and disordering what is well ordained? He also urges the objection that it is a downright fatuity to attempt to banish knight-errantry solely by the recital of the adventures of a knight-errant. To this the author replies by quoting the famous knight Don Suero de Quiñones with his nine companions in arms, men of real flesh and bone, who obtained leave from Don John II., king of Castille, to break three hundred lances in thirty days against all who would, in their defence of the Honourable Pass, until at last Don Suero took off from his neck the iron collar which he wore constantly every Thursday, in sign of servitude to his sweetheart. The author also quotes the canon Almela who had a fancy for chivalric trifles, and was wont to bear a sword which had belonged to the famous Cid Ruy Diaz, according to an inscription on it which no man was able to read. The Bachelor, who is perpetually interrupting the connection of the argument by references to his father, a brave soldier in the German war, ever the last to advance and the first to retire, objects that these are ancient instances, though for that matter his antagonist might well have quoted the challenge of the king of France and Henry VIII. of England to Charles V. to fight them on covered field after all the laws of the tourney. "And to tell you the truth," adds the Bachelor, "very glad indeed should I be to see the days of chivalry return. Would I not ride out myself one fine morning in a robe of leather stuffed with Squirrels' fur among the mountains, and there be surprised with a sudden storm of wind and rain? Then in the midst of the darkness I should wander to a spot which none dare enter for fear of the evil beasts that lodge therein, and there should I meet a most courteous prince himself a knight-errant, to wit the knight of the Red Band or of the Griffin, who has also happened to lose his way. Then will appear to us two incontinently a dwarf with a foul face and a fearful voice, who will announce to my companion a most terrible adventure. He will say the Princess Bacalambruna, who by the death of her father Borborisou, him of the wry nose, is now mistress of yon enchanted castle glimmering by the river side, is wounded by your love—when night has unfolded her fearful cloke, come to the castle whose doors will be open unto you. Then will that knight tell me how he is unable to go for that he has long been enamoured of Arsinda, daughter of Quinquirlimpuz, king of Taprobane. Then will the fancy seize me to delight myself with this

dame whom all men would admire, did she suffer herself to be one of any. Then shall I reach her castle by nightfall, and a light torch will move of its own accord before me, until I come to a gorgeous palace of gold and silver and pearls and precious stones with carpets of the finest silk and hangings of gold. Then the torch will go out and the princess will come in, and after she is fallen asleep, I shall, by means of a lantern which I have brought for the purpose, discover her to be the most beautiful woman in the world—but a drop of wax falling on her breast will wake her, and much will she marvel to see no knight of the Griffin, but a hump-backed and a long-nosed knight. Then, holding my hump, not knowing what it is a rich adornment of nature, but for a deformity, straightway she will cast about to compass my death. In the meanwhile I shall invoke some malign enchanter, who, owing to his malignity, will pretend to hear me not. But a dueña, the fairest of all dueñas in Transylvania, will deliver me. Her shall I promise to wed when next I pass that way, which will assuredly be never, but in that hour will become my duty to promise what I cannot perform as well as what I can." In another adventure the Bachelor supposes himself married to the daughter of an Emperor, attired indeed in the costliest brocade, but so excessively ugly as to appear rather a devil escaped from hell than a human creature. To appease this lady's anxiety for a husband, her father has set her as the prize of any brave knight who can obtain by his arms the possession of the great beauty which is in her. As no other knight appears, the Bachelor himself enters the list while the ignorant and evil-minded rabble cry aloud, "Here comes the knight of the horrible hump! Room for the flower of knighthood! His courser prances as usual, and as usual he comes to the ground discovering in his fall certain matters which the sun's light never have seen. Then the princess finding him fit for marriage asks him at once from her father, who well knowing his daughter had run the market of knights-errant without finding a bid, that she is in fact a bad half-crown and a jewel not vendible, gives her to him along with a kingdom of dwarfs as a reward for his prowess; "And so," says the Bachelor, "from a graduate of Salamanca, and not of Alcalá, I shall be nothing less than a king, and a poem will be composed in my praise, in the language of my kingdom, unknown as yet to the most learned of cosmographers."

After this long tirade of the Bachelor's, which is much longer than the original, the author does his best to bring him back to the subject of knights-errant in their own time, and when the hump *back again and again* reverts to the history of his valiant si

hopping, as the author says, like a little bird from flower to flower, his antagonist imitates the strange resistance of the serpent who stops her ears with her tail. The Bachelor, a father of proverbs like Sancho, is as talkative as a black bathing woman, but the author, with laudable perseverance, defends his own thesis by the examples of Oliver de la Marche, Knight of Philip the Good, and of several other knights in the days of Charles V. and his son Philip II. It is, he concludes, but a set of loggerheads who, to mislead the people, maintain the non-existence in the present day of these knights-errant, who may well be encountered in villages if they exist in the courts of kings, though indeed in the hurly-burly of palaces they are unnoted, since the court is the mother of madness of every kind. Then the author enters upon a panegyric of his work, in the middle of which he is interrupted by a mishap. For during the colloquy the hectic bag o' bones has become possessed with a devil similar to that which possessed Rocinante in respect of the Yanguesian mares. The mule, like a virtuous Lucretia (the world has grown so corrupt, that it is reserved for mules alone to show themselves Lucretias), leaves her lover in an evil plight, of which the author takes advantage to show the Bachelor that some at least of the contents of the Knight of La Mancha are other than madness and folly. The sun sets—the author bids the Bachelor good-bye, who, bewailing his ill-starred beast, neither sees nor hears him, and continues his journey to Toledo, where in the house of a friend he writes his adventure to undeceive a number of people who see in "Don Quixote" what Don Quixote is not, and determines to call his pamphlet "Buscapié," that all those who seek for the foot on which the ingenious Manchegan halts, may find out that he is sufficiently sound on both to enter into most singular battle with all dolts and backbiters, despicable insects which every well-ordained city supports to its own detriment.

And so the "Buscapié" concludes with the ordinary form of leave-taking. In its last sentence the author makes a sort of pun on the title of his work, the proper signification of which is a rocket without a stick, which, being fired, runs along the ground betwixt people's feet. It means also, metaphorically, a feint or feeler in talk, introduced to obtain further information, and a key to obscure passages in a work. The object of the "Buscapié," according to Vicente de los Rios, was to excite the attention of the public to "Don Quixote," by explaining it to be a satire on certain noble persons, such as Charles V. and the Duke of Lerma, the favourite of Philip III. The advantage to be gained in the sale of a book by declaring it to be directed against living notabilities is as well understood now as in

the days of Cervantes and of Pope. But the fact that several editions of "Don Quixote" were published in a short time—four, indeed, in the year of its appearance, 1605: the first and fourth at Madrid, the second at Valencia, and the third at Lisbon—is a serious objection to the view of Vicente de los Rios. Moreover, Cervantes speaks of "Don Quixote" with the highest respect of Charles V., going so far as to call him *invictisimo*, deviating from the rules of grammar in his desire of forcible panegyric. Still, the reader of the "Voyage to Parnassus" will hesitate some time before admitting that Cervantes intends every word he writes to be taken in its natural meaning.

In the Prologue of the edition published by De Castro, the author asks the reader to read the "Buscapié," if he has not, through want of intelligence, been able to disembowel the matters hid in his ingenious Manchegan flower and mirror of all knight-errantry. But the reader obtains very little explanation of difficulties from the "Buscapié." Here is a delicately fine imitation of Cervantes—he be not indeed the author—who was so culpably and notoriously careless in the matter of Sancho's ass and the name of Sancho's wife. But surely it appears that the chief purport of the work was to show not only by the example of particular persons in high station, but even by that of the generality of people, of which the Bachelor may be taken as a representative, that knights-errant existed at that time, and that knight-errantry was still a subject of admiration. It may be remembered that in the second part of "Don Quixote" the Ecclesiastic, as he is called by Cervantes, supposed by some to be intended for Luis de Aliaga or Avellaneda, makes the very same objection against the existence of knights-errant in his time as is made by the Bachelor in the work before us. "Where have you found," says this irate dignitary, addressing Don Quixote, at the Duke's table by the injurious appellation of "Soul of a Pitcher"—"Where have you found that there have ever been, or are now, any of your knights-errant? Where are your Spanish giants? your Manchegan marauders? your enchanted Dulcineas? and the whole pack of your idle absurdities?" The purpose of "Don Quixote" was, according to its prologue, to overthrow the ill-founded pile of books of chivalry, abhorred by so many and praised by so many more; and the "Buscapié" comes as a sort of corollary to give proofs, not, indeed, of the existence of books of chivalry which was never denied, but of knights-errant who still remained in the world at the time "Don Quixote" was written.

The extent to which the subject of knight-errantry had occupied men's minds is shown by a volume published in the middle of the

sixteenth century, composed by Hieronymo Sanpedro, called "The Book of Celestial Chivalry of the Stem of the Fragrant Rose." This book, which in its dedication curiously anticipates the comparison of Mrs. Malaprop to the orange-tree, contains some hundred chapters on Marvels, beginning with the creation of two round tables, the earth and heaven, by the omnipotent Emperor, and ending with the conduct of King Hezekiah, by a certain sage, Alegorin, to the splendid palace of Abraham, where he sees the leading members of the heavenly host, and is informed of the advent of Christ, the Knight of the Lion. In this unique romance Eve and Rebecca are represented as two beautiful princesses in the style of Oriana and Angelica; the Devil becomes the Knight of the Snake; while Abraham figures as a second Tirante or Amadis of Gaul. The author, in a preface, modestly expressing his doubts of his own eloquence, consoles himself a little naively with the example of Balaam's ass. It is only fair to add that this book was rigorously prohibited by the Holy Office.

The "Buscapié," short as it is, abounds with amusement. No work of Cervantes, from his "Galatea" to his "Persiles" contains so much fun in so little space. What Addison thought of Pope's "Rape of the Lock" before the introduction of the Rosicrucian machinery, may be applied to it. It is *merum sal*, a delicious little thing. Here, for example, is a passage taken from the Bachelor's criticism on the Book of Spiritual Verses, the companion of Don Quixote, in his leather purse. "One thing," says the humpbacked, "much annoys me herein; I mean the confusion and mixture of the ornaments and court-dresses of the Christian Muses with those adored by barbarous heathendom. Now, who does not feel offended and hurt when he sees the name of the Divine Word, and that of the most sacred Virgin Mary and the holy prophets to boot, with Apollo and Daphne, Pan and Syrinx, Jupiter and Europa, and with that cuckold of a Vu'can, and that son of a whore, little Cupid, the blind god born of the adultery of Venus and Mars? And yet, what a mighty bustle was made by the author of these same absurdities about a pious old dame, who used to answer in a snuffing tone, 'Praised be God,' when in the service of the mass he said 'The Lord be with you,' instead of replying, as she ought to have done, in conformity with the prayer book and ordinary courtesy, 'and with thy spirit.' 'The devil take you and all your lineage,' quoth one day the offended divine; 'can't you see, my good woman, though your prayer is pious, it is not here to the purpose?' The Bachelor's criticism on the author of the Book of *Spiritual Verses* would certainly have received the

support of Dr. Johnson, one of whose favourite subjects of reproof, in the Lives of such Poets as he seems to have held apostates from God's grace, to wit, is the irreligious licentiousness of many of their lines. Most readers will remember his complaint about the indecency of Dryden, who—in this respect at least, as bad as the subject of the Bachelor's animadversions—after proposing, in his verses on the Restoration, a sacrifice to Portunus and other sea gods for Charles the Second's safe return, says, in the language of religion—

Prayer stormed the skies, and ravished Charles from thence,
As heaven itself is took by violence;

and, adds his horror-stricken biographer, afterwards mentions one of the most awful passages of sacred history. The punctilious Bachelor speaks with great approval on another occasion of the change attributed to Charles V., in the famous words of Julius Cæsar: "I came," said the Emperor, "I saw," but he added, as a Christian prince should do, "God conquered."

Everybody probably, except the traditional school-boy of universal knowledge, will remember the scene in the First Part of "Henry IV.," where the counterfeiting Falstaff, after slaying the already slain Hotspur, bears him on his back to the prince and claims the reward for his egregious valour. Those who delight in the detection of such plagiarisms as it is now the fashion to call literary parallels may ascribe, if they will, to Shakespeare an incident in the Bachelor's account of how he became a captain. This gentleman one day, in the heat of a fight with the German heretics, is looking about him anxiously for some convenient place of retirement, deeming, doubtless, like the fat knight, that the better part of valour is discretion. On his way he notices the number of his fellow-soldiers carried off by death,—as the author says prettily elsewhere, borrowing his simile from the first line of one of Argensola's most celebrated sonnets, like vine tendrils by the hand of October. The idea comes to him that he should reserve himself, the Bachelor not being as yet born nor engendered, for greater matters. To his companion's suggestion, that the narrator should say rather the least of matters, the humpback phlegmatically replies that he has heard before that he is very small, but he has always held it for idle talk, a tale told by an old woman round winter fire. To resume his story: at the end of the battle, says the Bachelor, my father appeared before the Emperor with more than thirty heads of the heretics cut off by his own sword, a weapon on the majority of occasions of a retiring, modest, and unassuming character. But to show the malice of the world, adds the graduate of Sal-

manea, and not of Alcalá, evil tongues were not wanting to affirm that my father had cut off the heads of bodies already slain by others, and that he was like the man who buys dead birds in the market and then solemnly declares that he shot them himself. Well might the Hebrew sage insist on the want of novelty under the sun, when even this little device of our modern sportsmen, if it be not written by De Castro, is as old as the sixteenth century.

A propos of sportsmen, to them probably will be most interesting an enumeration, somewhat tedious to others, of what are called the good points of a horse, all of which in the Bachelor's belief meet together in his miserable hack. Several lines are expended on this subject, which go far to show the work not written by Cervantes, who in none of his writings manifests any remarkable delight or interest in this particular quadruped, of whom it has been said that, though noble himself, he makes everybody who is busied about him more or less of a blackguard. The epithet "horsey," which is now creeping into our language, is indeed seldom complimentary. "It would be unnecessary," says Fielding, in "Joseph Andrews," referring to the talk that passed between Squire Booby and his Worship the Justice—"it would be unnecessary, if I was able, which indeed I am not, to relate the conversation between these two gentlemen, which rolled, as I have been informed, entirely on the subject of horse-racing." Cervantes would in this respect, doubtless, as in many other respects, have agreed with one of the most able of his imitators.

If the "Buscapié" be not by Cervantes, it must be allowed to be a capital imitation of the great artist. Even Ticknor, who will have none of it in regard to authenticity, admits it to be pleasantly written, witty, and talented, showing a remarkable familiarity with the works of Cervantes, and a still more remarkable familiarity with the literature of his period. It is, indeed, full of allusions to the books of old, rare, and comparatively unknown authors, who wrote most of them towards the close of the sixteenth century. Of these, not the least noteworthy is one Doña Oliva, a learned lady, who published in the reign of Philip II. "A New System of Philosophy concerning Human Nature, unknown to the great philosophers of antiquity, and improving the health and life of man." De Castro declares, in a note, that medicine is indebted to her for rare discoveries in anatomy, especially that of the nervous juice, which, under the name of nervous fluid, is still a subject of lively discussion.

The style of the "Buscapié" is, like that of "Don Quixote," a copy of the style of the old romances. We find the same intro-

duction of old words, such as *alemaña*, *sage*, and *respuso*, which is repeated twice, and generally throughout the book an affectation of archaic forms of expression. The customs of the time, too, are, if the work be modern, preserved with admirable skill. The Bachelor takes Cervantes for a member of the medical profession, because he is riding on a mule, an animal as necessary to procure esteem for the doctor in the eyes of his patient in the sixteenth century as a one-horse brougham at the present period. The conceit and ignorance of the Bachelor, the corruption of women, the figures of classical or Spanish heroes in the tapestry hangings of inns, are all of them photographs of the time of Cervantes. The disesteem of those professing the most noble exercise of letters to which the author casually alludes in the "Buscapié," the envy which ceases not to oppress genius with a thousand inconveniences, is indeed of all ages, but was perhaps especially patent in the latter half of the sixteenth century. The love of inferior verses is a characteristic of Cervantes. His passion for poetry, which he tells us in his "Voyage to Parnassus" beset him in his tender years, appears in this work, as in all other works written by him, and it is, moreover, marked by his wonted carelessness, his not unfrequent inconsistencies and mistakes. To err, indeed, is common to mankind, but the apparent inconsistency in a censure of chivalric comedies by the author of "The House of Jealousy," and "The Woods of Ardenia," seems Cervantes' very own.

Taking into consideration the satire of "Don Quixote," and its numerous metamorphoses which perhaps induced the author to speak of himself in the Sonnet of Gandalin to Sancho, as the Spanish Ovid, Pellicer was of opinion that Cervantes proposed to himself as a model for his immortal romance, the "Golden Ass of Apuleius." There seems, indeed, to be between this truly modest tale and the "Don Quixote" quite as much relation as exists between the Persiles and the "Æthiopic History of Heliodorus." We read in the "Golden Ass" how Lucius, the hero, coming home one night about the third watch, from a banquet, a little the worse for wine, slays with many and deadly wounds three robbers as he supposes, whom he finds attempting a burglarious entrance into the house where he is staying. After this feat, panting for breath and bathed in perspiration, he throws himself on to his bed and falls asleep. In the morning he is arrested on a charge of murder. At the trial the three corpses are introduced on a bier covered with a linen sheet. He is commanded by the judges to uncover the bodies of the murdered. *He does so*, and exposes three wine-skins slashed and

pierced in the very parts in which he had attacked the burglars. The most unobservant reader will at once discover the resemblance between this story and that of the brave and uncommon fight which Don Quixote fought with the skins of the deep-red wine, in which the hero distinguished himself more as a utricide than a homicide. No less resemblance is there between the circumstances in the Bachelor's tale of the drop of wax falling on the breast of his beautiful mistress, and waking her, and the well-known incident of the waking of the Love God by a drop of burning oil in the drunken old woman's story of Cupid and Psyche.

The best reason for supposing the "Buscapie" apocryphal lies in the fact that although the original MS. has been frequently demanded, as would naturally be the case, from the Sr. Castro, he has never submitted it to the examination of any of the Academies of Madrid, or indeed that of any public tribunal competent to determine whether or no the MS. in his possession is to be considered a copy of a work of Cervantes. To Mr. Ticknor, all evidence of the genuineness of the "Buscapie," external and internal alike, is unsatisfactory and suspicious. The very similarity of style to that of Cervantes, its use, word for word, of some of his favourite expressions, seem to the learned Anglo-American, as he is called by De Castro, damning proofs of its being a forgery. The more exact resemblance it bears to other works of Cervantes, virtually says Mr. Ticknor, both in its substance and form of thought, the less probable is its genuineness. It is, he actually says, too close a copy of the great original. If evidence of this kind is to be admitted, we may, replies De Castro, other things being equal, regard the Tale of the Captive as a spurious introduction into "Don Quixote," since it is obviously the same as that in "The Bagnios of Algiers." So the fiftieth chapter of the first part of Don Quixote, in which the hero gives a description of the knight-errant's life to the Prebendary, very nearly parallel to that which he gives to his squire in the twenty-first, must surely be rejected. So, too, must be rejected Sancho's tale of the Knight of the Wood, about the prowess of his ancestors on his father's side in the matter of wine-tasting. Two of them, as the reader may remember, were asked their opinion of the quality of a certain cask of wine. One tasted the wine, the other contented himself with smelling it. The one said it tasted of iron, the other that it smelt of leather. Time went by, the wine was drunk, the cask came to be cleaned, and lo! at the bottom of it a small key hanging from a strip of goat-skin. This anecdote is, of course, *but a mere repetition of that in the Entremes of the Election*

of the Alcaldes of Daganzo. Nor does Mr. Ticknor's remark that Cervantes is made to speak in a disparaging way of Alcalá de Henares, his native place, appear to be an argument of very great weight against the genuineness of the "Buscapié." The speech is placed in the mouth of the little humpbacked Bachelor whom its author delights to ridicule. Mr. Ticknor maintains that whenever an author alludes to his birthplace, or to his contemporaries, in terms of good or evil he is to be considered personally responsible, into the mouth of what soever of his puppets the allusion may be put. So, he says, it has always been, so it is, and so it is just that it should be. But the present question seems rather to refer to the meaning of the author's words than to his responsibility. Nor does it follow that because the censure of the Bachelor concerning Alcalá is not to be taken *au pied de la lettre*, the praise of the same place in the mouth of Don Quixote, or of Teolinda in the "Galatea," is therefore also to be taken as censure, unless indeed it be asserted that the speeches of the wise and the foolish of an author's characters are intended to have equal authority, and that he who occasionally speaks ironically is incapable ever after of saying what he really means. But the Bachelor's speech is of one web with his opinion of his horse and himself. The shortsighted rider in spectacles is mounted on his sorry jade of ignorance which causes all who ride it to fall, and all who lead it to be laughed at. On this occasion, at least, De Castro's charge against his antagonist, that he mistakes jest for earnest, seems to be well founded. But when the Spaniard goes on to observe that all the observations of the learned Anglo-American are the daughters of levity and error; that he is mistaken about a common phrase in Spanish, and that he understands nothing at all of the matter in dispute; we must surely interpret him as speaking solely in a Pickwickian or Parliamentary sense scattering in the path of his opponent the common flowers of literary courtesy, a delicate attention fairly merited and requited by the latter's conjecture that the text of the "Buscapié" may have been adjusted to the notes quite as much as the notes to the text, and that Sr. Castro is without any pretence to skill in the English language.

There is no doubt, it is indeed admitted by the most learned of the Sr. Castro's opponents, that the "Buscapié" when first published was considered authentic by the best authorities in Spain. There was then no need of any Cervantes *fecit* in its margin. It is the opinion of Don Pascual de Gayangos that, at the present time, the verdict of those most fitted to judge is generally that the work is apocryphal. To the mind of the able scholar last mentioned the "Buscapié" is a literary toy of Adolfo de Castro, who, he thinks, has

doubtless in view his own diversion at the expense of his many friends and brothers in the study of letters. There is, he says, a certain literary vanity in duping those who value themselves on their critical skill and hold themselves to be masters therein, a vanity in no degree blameable when it treats of a supposed *trouaille* which, like the present, affects not at all the historic and religious creed of his country. To this sentiment the Sr. Castro perhaps yielded himself, and if many literary men at first believed the "Buscapié" to be the work of the immortal Cervantes, the Sr. Castro ought to rest satisfied and well content, although others, either more incredulous or more versed in the mysteries of the Spanish language and literature, at once discovered the "Buscapié" to be nothing but a piece of banter. However the truth may be, the "Buscapié" reached more than a dozen years ago its sixth edition. It is printed with the other works of Cervantes. It has been translated several times into other tongues, and though its genuineness were satisfactorily disproved, it would yet leave to its author, in many other lands besides his own, no little fame as a writer of taste and talent, of incisive wit and rare erudition.

JAMES MEW.

IN THE DEER FOREST.

A FRIEND was walking one misty November morning on the outskirts of the beautiful grounds near Bolton Abbey, and was suddenly alarmed by a hoarse and often-continued roaring from the heights above. Not being a naturalist or sportsman, he was somewhat dismayed, as nothing could be seen through the misty curtain spreading around, and imagination conjured up a cohort of wild cattle ready to descend and annihilate him. Fortunately a companion of his ramble was able to reassure him. These hoarse roars proceeding from the cliffs, hidden by mist, were nothing but the bellowings (or, to use the correct word, "belling,"¹) of the red deer stags. They were challenging their rivals to fight after the manner which Landseer has made familiar to all, and expressing their devotion to the large-eyed hinds which accompanied them. The ignorance of wood-craft displayed by our friend (otherwise a well-read scholar) points him out as a probable type of a very large class of persons, who may, perhaps, like country sights and sounds, but have never had the opportunity of familiarising themselves with the red deer in its native haunts. To such the following pages may be of service.

The only locality in England where the red deer leads a really wild life, and is pursued by hounds, is on Exmoor. The chase takes place in summer, and often leads to very severe runs, the quarry frequently taking to the sea, off North Devon or Somerset, and sometimes being killed by falling amongst the rocks facing it.² The incidents of the chase as followed on Exmoor have been recounted in a classical book, "Collyns on the Chase of the Wild Red Deer," most of which, however, seems to have been written by the late Sir John Karlake. Whyte Melville and Charles Kingsley have also treated of it; while one, who is the Nestor of English sportsmen, still pursues the sport, as an octogenarian, with the zest of a youth, and will ride his thirty

¹ See *Marmion*, IV. 15 :

The wild buck *bells* from ferny brake,
The coot dives merry on the lake.

² The Devon and Somerset staghounds had killed 86 deer by February 7 this season, and perhaps half-a-dozen more meets remained.

bles a day in a manner which would not disgrace that youth, however active and bold. Cultivation is closing in upon the moor, and year by year the grazing grounds of the deer are becoming more circumscribed. But it may be hoped that not for many long years will this relic of past sporting days in England become extinct.

To see the red deer, however, in perfection, with all his instincts sharpened and his keen sense of danger quickened by the lonely existence which he leads on the mountains, the sportsman must visit the Highlands. Much of their wild country is reserved by the owners for deerstalking; vast moors leading up to high ranges of mountains, intersected by streams and "correis" (the sheltered grassy valleys by streams), and often bordered by deep lochs, are wholly given over to the red deer. A strict supervision is exercised over these immense tracts of land by a good staff of keepers; strangers and visitors are discouraged; sheep are kept away; every precaution is taken that the deer may not be disturbed by the presence of many people, and by noise, shouting, and the like. For if disturbed frequently, the deer may, and often do, desert a whole stretch of country for a neighbouring march, where their tastes are more carefully consulted. Miles of fencing, occasional lodges, and a distant peep at deer on the sky-line beyond, are all that ordinary travellers see of most of the Scotch deer-forests. In others, especially in the extreme North of the country, the lessees are more liberal, and the public may pass through at will on certain leading tracks. In this case the deer may often be seen at no great distance, for they are remarkably sensible animals, and soon know when a man is to be feared or merely tolerated. Few more beautiful sights can be discerned in these Northern deer-forests than the behaviour of the little herds which run sportively along the hills, or browse on the underwood, while some grand-headed stag, or the presence of a few hinds, with their fawns, lends additional interest to the charms of wild moorland and mountain scenery. Sometimes the deer condescend to mix with the ordinary red and black cattle of the country; but they cannot abide sheep, any more than horses care to be near camels. We remember a fine stag which evening after evening used to come down to the grassy end of Loch Assynt, where the river Loanan runs into it at a place known appropriately enough as Inchnadamph (the cattle-meadow). The boys and gillies of the neighbouring hamlet amused themselves with stalking it, each one trying to get nearer it undiscovered than his friend. This was a very fearless animal. As a rule, however, little can be seen of the peculiar habits and instincts of the red-deer even in Scotland,

unless the visitor have access to, and a keeper's guidance through a regular forest.

During the middle ages much of England was left uncultivated, where red-deer roamed in large numbers. "Between the tenth and twelfth centuries, great forests came up almost to the gates of London."¹ Much of Staffordshire was either woodland or moor. Needwood Forest itself was twenty-four miles in circumference in Queen Elizabeth's reign. Sherwood Forest ran far into Yorkshire on the one hand, and on the other joined the great woods of Lancashire. One forest alone, and that not in the wildest part of Cumberland, extended, at the time of the Norman Conquest, from Carlisle to Penrith, and was full of "red and fallow deer, wild swine, and all manner of wild beasts." As for Scotland, the great Caledonian Forest clothed most of the country, behind the margin near the coasts. In England the different lords of the country and their friends hunted in these vast woodlands, strict laws inhibiting in most cases the villains from killing any beast of venerie. It was a privilege of a bishop, when on progress, that he might kill deer for himself and retinue; at his death, however, his *mota canum* (kennel of dogs) was forfeited to the King. In Scotland all the clansmen indifferently, within any district, until the middle of the last century, lived on whatever they could kill on woodland and moor. The forest laws never prevailed there in the same oppressive fulness as among the Norman Conquerors. Curiously enough, the state of matters is now reversed, and rights of shooting and fishing are upheld in Scotland during our own times with even more aristocratic exclusiveness than in the South.

The word "forest" has acquired a rigidity of interpretation in modern days which it did not possess of old. We now confine it in common discourse to a large district of wood; but in old time (and at present in legal documents and in the northern division of the island) it had a much wider signification. Manwood² defines a forest as being "a certain territory of woody grounds and fertile pastures, privileged for wild beasts and fowls of forest, chase and warren, to rest and abide in, in the safe protection of the king for his princely delight and pleasure." Before Canute, all wild beasts and birds were claimed as the king's alone; just as in Scotland the right of catching salmon has always been regarded as a royal privilege, to be granted only to those who merit such favour of the Crown. To this day, therefore, the right of salmon fishing in the North is upheld

¹ Harting, *British Animals Extinct within Historic Times*, 1880, pp. 7-9.

² *Forest Lawes*, 1615.

every case by royal grant, implied or expressed, and does not allow the old Roman law that proprietorship is vested in those to whom the banks belong. There is much that is curious in Manwood's book on forest laws; it is worthy of perusal by all sportsmen. His arguments, indeed, are very often sophistical to the last degree, as where he writes: "It doth appear that there were forests—yea even in the verie time of King David; for he saith, in his fiftieth Psalm, these words: 'Oh, Lord, I need not to offer unto Thee burnt sacrifices of beasts: for all the wild beasts of the forests are Thine.' Then, ergo, there were forests of wild beasts in his time;" but his information is extensive, and his legal acumen remarkable.

A "forest," therefore, in its modern application throughout Scotland, being a large tract of moor and mountain, far more conspicuous for the absence than for the presence of trees, although in the correis and other sheltered valleys it is beneficial to the deer that there should be wood for food and harbour, let us next inquire what are the great deer forests of the North. Their acreage being vague, they must be measured by their rental. A reference to Mr. Lyall's useful handbook¹ shows us, first, the Ballochbuie Forest, near Braemar, belonging to her Majesty. Dotted over all the northern and western shires, and even on the islands, are many more forests. The most extensive of all the western forests is probably the Black Mount deer forest, in Argyllshire, of late let to Lord Dudley for £4,470 by the Earl of Breadalbane; Rothiemurcus, in Inverness-shire, lets for £2,000; Gaick Forest, in the same county, brings the same sum; Glenfeshie, again, lets for £2,500 to Sir C. Mordaunt, and we have seen some fine stags which he has brought down in it. An American capitalist rents the finest and most extensive of the northern forests (Glenstrathfarrar) at nearly £5,000 per annum. It is evident from these figures that deer-stalking is not a sport to be indulged in by a poor man. Glenmuick, Invermark, Abernethy, Ardverikie, Ardvourlie, Ceannocroc, Glenloyne, Glenmore, and Kinloch are other well-known forests. Ross-shire holds several famous ones; while the Reay Forest, in Sutherlandshire, rented by the Duke of Westminster, is very extensive and wild, and runs up towards Cape Wrath. Such vast wastes as these, it is evident, could not be adequately watched, save by an army of keepers: their owners, therefore, take care, for the most part, to be on good terms with the neighbouring cotters and shepherds. But in most districts there are certain well-known characters as devoted to deer-stealing as ever was Shakespeare. Their depredations are often carried on in

¹ *Sportsman's Time Tables and Guide.* (Published monthly.)

broad daylight, after watching the keepers "to the other side of the hull." Sometimes they are in league with the shepherds. It is not often nowadays that they go about their business in gangs. They have no mind, like the poachers of the English manufacturing towns, for bloodshed or murder if resisted, and prefer getting their venison as quietly as they can. Stories are told that at times they enter into a compact with the keepers. "My lord" shall have his month of shooting without his forest being disturbed at the beginning of the season, and when he leaves Scotland, "ye'll jist look the ither way ye ken, Donald, while we tak to the hull for what few bits o' vennisson we may need." Perhaps my lord is not sorry to wink at such a bargain as this. He gets what he wants, and there is no fear of bloodshed or trouble when he leaves the country. We heard a good story lately in the north of Scotland *à propos* of poaching. The members of a certain gallant corps of riflemen had been allowed to retain their pieces at their own houses between the different drilling days. One or two had found them valuable auxiliaries in nocturnal and early morning raids upon the deer forest of a neighbouring potentate. At length his keepers got on the scent of the culprits, and a regimental order was issued that all rifles should at once be returned to a central armoury. In a month or two Major _____, the inspector, arrived to make his annual review of the corps, which mustered in full force, headed by the worthy owner of the deer forest, still smarting under the recent depredations upon his property, and, perhaps, still more under the gossip of the amused country-side. The inspector passed a deserved encomium upon the appearance and manœuvring of the corps, and then, turning to their captain, slyly said, "I think I need hardly inspect the men's rifles; I hear that they have been kept in pretty fair working order since I was last here!"

The red-deer is by far the noblest of our native quadrupeds. A fine specimen will stand four feet high or even more at the shoulder. As for weight, eighteen to twenty stone is a goodly animal, but they are occasionally killed up to thirty stone. The number of tines in a stag's antler varies with age, condition, character of pasturage, &c.; and it is considered that breeding in and in has somewhat injured the average size of modern deers' heads in Scotland. A vast amount of forest learning depends upon the horns. They rise from the "burr," or rough ring at the base; the main stem is called the "beam;" the branches of it are "antlers," each distinguished by its proper name, such as "brow antler," "bez antler," and "royal."¹

¹ Bell's *British Quadrupeds*, 2nd ed. pp. 349, 355.

The old books on venerie distinguish learnedly the different names of the animals—stag, brocket, hart, hart royal, and the like. In modern forestry the term royal antlers is applied to a stag's horns which carry twelve regular points, each tine so distinct that the stalker's watch can be hung upon it. Sheep, as we have said, are hateful to deer. Even grouse are shot down as vermin in a forest, as they are apt to rise with every token of alarm just as the stalker may be attaining a position for a shot which has cost him miles of careful walking and creeping. His sagacious quarry is then off in an instant, and all his labour lost. We have seen a line of wire fencing running across a moor, on one side of which was a deer forest, where all the grouse which appeared were ruthlessly shot and treated as vermin; on the other side of it was a grouse moor, and the birds were religiously preserved. The naturalist is thankful for the existence of deer forests in Scotland, as they are the means whereby many of our more interesting quadrupeds—owls and falcons, elsewhere shot down remorselessly as vermin—are preserved to give animation to the scenery. In these great tracts of moorland given over to deer their presence does not signify to the sportsman. They will not injure the deer, so their lives are contemptuously spared.

The tourist who finds his way to these deer forests is apt to think that the line of dull brown and reddish creatures which he discerns on the distant hillside, or filing in single column over its crest into a new world of bare moors and crags beyond, might be easily approached, and two or three fall victims to a couple of rifles. He is in truth never more in error. The senses of deer are wonderfully acute, and ever on the alert. A shepherd or carter may pass tolerably near without the herd taking alarm, but anything unusual in the shape of sportsmen with rifles, and it may be a dog or two held in leashes, at once renders them suspicious, and calls forth all their native timidity. In some forests deer drives are organised at certain times. This seems to us poor sport in itself—not unlike what shooting hansom-cab horses passing under the windows of a London club might be—and nothing so terrifies and disperses the survivors. It has not even the plea of necessity to recommend it, as has grouse-driving, when the birds become too wild to give a chance of a shot. It may perhaps suit a handful of aristocratic sportsmen unwilling to take the severe exercise which stalking demands, but it will meet with no favour in the eyes of the man who is delighted with wild sport and the freedom of the hill-side, and who loves to match his skill against the fine senses and extreme

caution of a noble brute. Such an one must possess strong thews and sinews, an iron frame, a capability of enduring cold and hunger equal to Catiline's, much readiness of resource, and quickness of eye and hand. He must learn to explore every hill-side in front with the most careful attention, before adventuring himself over the skyline into the valley beyond, to walk without making the least noise amid rustling heather, the boulders of a stream, or the "clatter" of a steep brae. While with one eye he sweeps the moors with a powerful glass, the other ought to be carefully fixed on the direction of the wind and drift of the clouds; and he must be extremely particular always to approach his quarry by keeping well to leeward. Then he should be skilled to avail himself of every scrap of cover, be ready to crawl for hours up and down braes of sliding pebbles, swim a swollen torrent, or work his way along the beds of icy-cold "burns." Thus he may at length get into a favourable position for a shot. Even then the stag has many chances on its side. The sun may glint on the barrel of the rifle; a whiff of scent on the wings of a cross breeze may betray the stalker; the stag itself may unaccountably gallop off, or from idle caprice change an insecure for a secure position, just as the finger is about to press the trigger. *Ibi omnis effusus labor.* Nothing remains for him but to wipe the brow, take a pull at the flask, and begin again. Of course a skilled attendant will be of inestimable advantage to the would-be stalker who is unaccustomed to the "hills;" but the perfection of exercise and sport is only to be attained when the gillie is strictly subordinated to his master, carries the ammunition, spare gun, or the like, but leaves his master free to devise his own plan of operations. If the acuteness of a stag's senses be considered, it will be seen what need its would-be stalker has of woodcraft. "There is no animal more shy or solitary by nature than the stag. He takes alarm from every living thing in the forest; the slightest sound, be it only the fall of a leaf or the scratching of a grouse, will scare and set him off in a moment: except in certain embarrassed situations, *they always run up wind*, their great security lying in their extreme keenness of scent, for they can smell a taint in the air at an almost incredible distance."¹

There are two occasions when the stag loses his wonted timidity and becomes a very serious antagonist, owing to his activity and the wide sweep of his horns. Our forefathers esteemed a wound from a hart's antlers most dangerous, as almost beyond the skill of leeches.

¹ *Sport in Many Lands*, by "The Old Shekarry" (H. A. Leveson), vol. 9 p. 11. 1877.

ever this may be, when a stag is wounded or run down, and at bay against a rock or in another advantageous position, it requires no little determination to rush in and despatch him. On occasions he will frequently maim and even kill dogs. In Scotland, however, dogs are rarely used at the present day, they are found to terrify and scare herds off a march far more than shooting. Sometimes one of the noble slate-coloured deer of the country is slipped when a stag is badly wounded, and endeavours to escape; but of course this does not affect the main body of the herd. The second occasion when a stag becomes an annoying neighbour is during rutting time, when the monarchs of the valley wander about excited, jealous, and savage. We have known a man passing through a forest at such a time thankful to find a culvert which providentially ran under the road. He was happily owed his life to this means of escape from the infuriated monarch.

The rutting season runs from about September 25 to October 10. A man should not in conscience shoot a stag after October 10, when the hinds are thinned after this for six weeks or so. October 10, therefore, may be taken as the end of the deer-stalking season. Who is lucky enough to see a couple of stags fight during the rutting season is amazed at the manner in which they strike at each other with their antlers and fore feet, and at the distance to which the rush of their meeting horns penetrates on the quiet moors. It is not unusual to thin off the hinds at the end of each season; fifty, or as many as a hundred in the case of a large forest are annually killed off by the keepers. The venison is much better for to that of the males.

It is a matter of general complaint in Scotland that the modern breech-loading rifles, over-stocking and over-preservation of deer, have led to a degeneration in the heads that the stags carry. The extreme popularity of modern breech-loading rifles, and the number of rich sportsmen who now engage in deer-stalking, may well have caused this result. Yet it is not always true in particular cases that moors are overstocked. In July 1879, Mr. Bass determined to take a census, if possible, of his deer in Glenquoich Forest, which, with the adjoining small forest of Clunie, runs to about 42,000 acres of excellent pasturage. His calculation was that a full but certainly not over-stocked moor would be one deer for every 12 acres, or about 3,500 deer of which perhaps 900 should be stags of all sizes. The actual census gave less than half these numbers, about 1,600 deer and 450 stags.

Mr. Bass believes that it takes from ten to twelve years for

the horns of hill deer to reach their best.¹ Mr. Scrope, writing in 1838, calculated the deer in the forest of Athole at between 5,000 and 6,000; and he gives the extent of this forest as being 40 miles long, 18 miles wide at the broadest part, with an expanse of 135,000 acres, of which some contained the finest grazing in Scotland. But all these calculations of the number of deer are exceedingly fallacious. It is very difficult to count them with anything like accuracy, owing to the wide extent of country over which they roam.

Without too curiously examining the truth of old Sir Robert Gordon's statement that the "deir of the hill Arkhill have all forked tailies,"² there yet remain numerous interesting questions connected with a deer forest. We shall only touch upon one more before "taking the hill," and that only because it last showed itself in print after the census of Mr. Bass's forest just mentioned, although it meets the Scottish tourist on every coach-top and at every breakfast and dinner table in the Highlands; leaving for the present any consideration of the animals, birds, and vegetation to be met in the deer forest. Over and over again, however, in the Highlands, the assertion is made by some embryo political economist, some household smarting under the remembrance of his butcher's bill, or more often still, some of those extremely self-opinionated *doctrinaires* who would ruthlessly stop all the means of amusement in Great Britain, that these vast deer forests are so much land diverted from the production of mutton, and withdrawn from the wealth of the nation to satisfy the selfish pleasures of rich or haughty aristocrats. Fortunately Mr. Bass supplies us with the means of neutralising so grave an accusation. A committee of the House of Commons, formed of representative men, not all of them sportsmen, was appointed in 1873 to enquire into "the laws for the protection of deer in Scotland with reference to their general bearing upon the interests of the community." The committee first examined seventy-four witnesses among whom were many Scotch farmers, and then reported unanimously that the evidence did not bear out either of the charges first, that deer forests tended to the depopulation of the country and secondly, that by the displacement of sheep for deer they diminished the food supplies of the nation and raised the price of meat to the consumer. The fact is, that only the mountainous parts of Scotland are adapted for deer forests, and that the business of sheep-farming would require the removal of a great part of a flock of

¹ Mr. Bass's letter to the *Times*, Oct. 14, 1880.

² *History of the Earldom of Sutherland* (Edinburgh, folio, 1813). Written in 1630.

from such ground during six months of the year; while the conversion into deer forests of any quantity of land that can be fully tilled, has been entirely negatived by the witnesses examined before the Commission.¹ On the other hand must be reckoned the large amount of money brought annually into Scotland by deer-stalkers; the roads, houses, cottages, &c., which must be supported, and we may add the charitable gifts and kindly examples of many ladies brought by husbands and fathers to the lodges of the deer-hunters. This last consideration alone largely increases the happiness and contentment summer after summer of the resident population of the lower classes among the Scotch straths and glens, taken with the rest of the evidence, is a strong proof that the practice of deer-stalking is extremely beneficial, rather than injurious, to the nation.

We must now spirit the reader to the keen breezes of a deer forest, and show him a little of the noblest of British sports; and here we will borrow for the magician's wand who showed Aurelius in the *Waldemare Tale*,

Or they went to souper,

Forestes, parkes, ful of wilde dere;
Ther saw he hertes with hir hornes hie,
The gretest that were ever seen with eie;
He saw of hem an hundred slain with houndes;
And some with arwes blede of bitter woundes,
He saw, when voided were the wilde dere,
Thise fauconers upon a faire rivere
That with hir haukes han the heron slain.

Should he be desirous of knowing, without the trouble of mounting a horse, what stag-hunting over swell after swell of heather is on foot, the late Capt. Whyte-Melville will vividly describe to him the charms of the sport in *Katerfello*; or would he have some idea of the pursuit of a stag on horseback through Highland passes in old days, let him turn to the *Lady of the Lake*, and then read

Yelled on the view the opening pack,
Rock, glen, and cavern paid them back;
To many a mingled sound at once
The awakened mountain gave response.
A hundred dogs bayed deep and strong,
Clattered a hundred steeds along,
Their peal the merry horns rung out,
A hundred voices joined the shout,
With bark, and whoop, and wild halloo,
No rest Benvoirlich's echoes knew—

See Mr. Bass's second letter to the Times, Oct. 19, 1880.

and so on, in stirring couplets than which Sir Walter never wrote finer and truer verses. But these gallops are gone by in Scotland. The taste of the age is for quieter and more certain sport. Harts are now only killed in the Scotch deer forests while watching for them at the earliest peep of dawn by the corner of a pass, and shooting the gallant beasts as they pass unsuspectingly by from their nocturnal wanderings; or by deer-stalking proper. Perhaps there is more excitement for the time and less hard work in the former method, when a keeper conducts you with lighted lantern over the first awkward bits of brae and moorland and through the burn that must be forded at only one spot, and that difficult to hit upon in the darkness. Then the light is put out, and amid the weird cries of awakening birds and beasts, and the gradual uplifting of the mists and saffron shootings forth of twilight from the shoulder of some mighty Ben, the sportsman waits with every nerve on the stretch for the huge-looming animals which may (or may not) return by his place of concealment. But deer-stalking proper is a fitter occupation for the man fond of wood-craft. It gives abundance of the hardest exercise, keeps every faculty of body and mind for a longer time on the strain, and prolongs the excitement often through many hours of pursuit and circumvention, until the long-coveted moment arrives when the sportsman, prone amid the heather, slowly pushes his rifle forward, imperceptibly raises his head inch by inch till he gets his eye on the bead, then draws the trigger, and either slays his quarry or has the mortification of seeing it spring off unharmed at a pace which in an hour will take it out of his own into his big neighbour the duke's marches. At such times, a man tastes the highest raptures to be derived from sport in Great Britain.

Several writers might be summoned to take the tiro afield in order to show him how to kill a stag—notably, Mr. Knox or Mr. St. John. But as every one in the least degree likely to take an interest in deer-stalking knows by heart the celebrated stalk after the "Muckle Hart of Benmore," so inimitably told in the latter's "Highland Sports," one of the most distinguished of his followers in wild sports and love of animal and bird life, Mr. T. Colquhoun, shall recount an adventure of his while shooting in the Black Mount Forest, which is 21 miles long by 12 broad.¹ It will illustrate what has just been said:—

"The day was, perhaps, the most unpropitious for stalking which could possibly have been chosen. In the morning, the mist was rolling lazily along the sides of the mountains in dense masses, and it was evident there would be rain before the close of the day,

¹ *The Moor and the Loch*, 4th edit. (Blackwood), vol. i. p. 54.

It was enough to damp the heart of the most ardent deer-stalker, but I determined (having little time to spare) to abide by the forester's opinion. His answer was, 'that we would just do our best ; but if we were unsuccessful to-day, I must e'en wait for to-morrow.' With this determination we started for the forest, followed by an under-keeper with one of Lord Breadalbane's fine deer-hounds led in a leash. A slight breeze at first sprang up, and partially cleared away the mist from some of the lower hills. The quick eye of Robertson immediately discovered a deer lying down upon the ridge of one of them. His glass was instantly fixed. 'There, sir, if you could manage that fellow, you would have one of the finest harts in the forest.' 'Well, suppose we go round by the back of the hill, and come down that hollow, we should be within fair distance from the rock.' 'If he'll only lie still and give us time enough.' This, however, the stag had determined not to do ; for when we came to the hollow, he had risen from his rocky couch and was immediately detected by Robertson quietly taking his breakfast among his hinds a considerable way below. The place was so open all round that it was impossible to get near him, and the mist soon afterwards came on so thick, that we only knew the deer were all round us by their incessant bellowing. The forester looked much disconcerted ; for, in addition to the mist, a drizzling rain began to descend. We sat down behind a hillock, and I desired the underkeeper to produce the provision-basket. 'If there was only a breeze !' said Robertson ; 'and I do believe it's coming, for the drops o' rain are much heavier,' and so it proved, for the mist again partially cleared. We hastened to take advantage of the change, and Robertson, ten yards in advance, mounting every knoll and searching every hollow with an eye that seemed to penetrate the very mist, suddenly threw himself upon the ground, and signalled us to do the same. A roar like that of a bull presently let us know the cause ; and on a little amphitheatre about five hundred yards off, his profile in full relief, stood as noble a stag as ever 'tossed his beamed frontlet to the sky.' There he was, like knight of old, every now and then sounding his trumpet of defiance, and courting the battle and the strife ; nor did he challenge in vain, for while we were admiring his majestic attitude, another champion rushed upon him and a fierce encounter followed. We could distinctly hear the crashing of their horns, as they alternately drove each other to the extremity of the lists. 'I wish the ball was through the heart o' one o' ye !' muttered the underkeeper. His wishes were soon to be realised ; for the younger knight, who seemed to have the *advantage in courage and activity*, at last fairly drove his

adversary over the knoll and disappeared after him. Robt rushed forward, signalling me to follow, and, peeping cautiously at the scene of the contest, slunk back again, and crawled on his knee up a hollow to a hillock immediately beyond ;—I followed for example. When we had gained this point, he took another survey, and whispered that the hinds were on the other side of the knoll within thirty yards. It was now a nervous time, but I did not help admiring the coolness of the forester. Without the appearance of flurry, he had both eyes and ears open, and gave directions with distinctness and precision. 'That will be the first goes a hind, the whole will follow. Place your rifle on the ground, and you'll get a famous chance about eighty yards.'—'Hold on, you'll be at last,' he again whispered, as hind after hind slowly came in review, when a roar was heard immediately below us. 'I'm leevin', he's comin' on the very top o' us. Hold the rifle steady, sir, and shoot him between the horns the moment his head comes over the knowe.' I had scarcely altered my position, when he came, and all, appeared in full view. Seeing us, in a moment he was out of sight at a bound, but, taking a direction round the base of the hillock, presented his broadside a beautiful cross-shot. I had time for deliberate aim, and the red knight of the hill fell dead and bleeding."

This recital shows that a novice would have no chance of succeeding without the potent aid of a skilled forester. It requires implicit obedience and the utmost deliberation in shooting, and the first importance. The least nervousness, hesitation, or delay may throw away the fruits of many hours' toilsome watchfulness. The greatest caution is required in shifting currents of wind, especially when the coveted stag is feeding in company with watchful hinds.

Let us now suppose the game, which has cost so much labour, strapped on the grey pony and conducted to the lodge for the hunter to admire his antlers before he is hung up in the large larder out on the open moor ; the pleasant time has come, and the tired stalker reviews his day's work in the Sanctum, hung round with horns and rifles. Or, perhaps he turns to his books to waste an idle hour in his town house—

When sylvan occupation's done,
And o'er the chimney rests the gun,
And hang in idle trophy near
The game-pouch, fishing-rod, and spear.¹

¹ *Marmion*. (Introduction to Canto V.)

We may anticipate his wish to know the best books on his favourite sport, only premising that books which profess to teach deer-stalking are most of them as useful as the manuals which would fain make a man a fly-fisher. Both these classes of books are useful for teaching the rudiments of the arts with which they are conversant, and serve to kindle and foster enthusiasm; but the hill-side and the trout-stream can alone make deer-stalkers and fly-fishers. Partly from appealing to a limited public, partly because those who could write a good treatise on deer-stalking do not care to do so, the manuals which a novice will find serviceable in his early essays may be counted on the fingers of one hand. As for "The Book of Deer," the tiro had better consult it on the first of April. Scrope, the friend of our fathers, must still have the preëminence, and his book, "The Art of Deerstalking,"¹ with illustrations by Sir F. Landseer, still commands a high price, and is likely to long remain the accredited guide to the sport of which it treats. But others than deer-stalkers may consult it with advantage, as it is interspersed with Scotch ballads and legends, and gives a good account of the geographical boundaries of the different celebrated forests. Another famous book, partly from its contents, partly from its authors—of reputed royal descent—John Sobieski and Charles Edward Stuart, is the "Lays of the Deer Forest."² Criticism too often degrades them into plain Messrs. Allan, but without entering upon this genealogical controversy it may be useful to know that the first volume contains many characteristic ballads, breathing heather blossom and pine fragrance, while in the second are narratives, some of them of extreme interest. Mr. St. John, in his "Wild Sports of Scotland," gives several excellent chapters on the sport, but in his "Tour through Suderlandshire,"³ devotes all the second volume and a quarter of the first to field notes on deer-stalking and other Scotch sports. For practical directions, however, and sound common sense, the very best manual is also the latest, the "Handbook of Deer-stalking" (Blackwood, 1880), written by Alexander Macrae, with an introduction by Horatio Ross. Macrae dwells specially on the set of the wind, and if his writing is occasionally that of a man more accustomed to the rifle-stock than to the goose-quill, the exact and careful character of his directions disarms criticism. Every position of wind, and every locality in which deer are wont to be found, is considered with a fulness of detail which seems to an amateur exhaustive. It should form an invariable accompaniment of the stalker's luggage when he goes north. Mr.

¹ Murray, 8vo. 1838.² Blackwood, 2 vols. 8vo. 1848.³ Murray, 2 vols. 12mo. 1849.

Ross appends some hints gathered from his long experience which must enhance the value of this little book. Dogs he has not taken out deer-stalking for a quarter of a century at least, regarding them as worse than useless; "the mischief which they do in a forest is quite heartrending." Deer-driving he condemns absolutely as "a most cockney, unsportsmanlike proceeding." What must chiefly commend his remarks to every lover of the noble animal of which he treats is his utter and proper abhorrence of taking chance shots or long shots, which too frequently send away a fine stag to die slowly in pain and misery. Reducing cruelty to its minimum is what alone renders field-sports legitimate in our eyes. The creatures of forest, fell, and stream, are given us for food so long, and so long only with a good man, as they can be mercifully and quickly killed. This caution is especially needed in these days of express rifles. Mr. Ross is an acknowledged master in the sport of deer-stalking, and it is with much gratitude to him for his merciful sentiments, the words of a true sportsman, that we, with a naturalist's love for the noble quarry of which he writes, end our notice of the deer forest with the closing words of his Introduction. Other sportsmen than deer-stalkers may well ponder his kindly advice. "I cannot accuse myself of having often wounded deer, because I make it a rule never to fire at deer beyond the range of 150 yards, and then only if I have a good steady view of the deer. However well men may shoot at a small mark on a target at a long distance, I venture to implore them to think of the misery and pain they may cause to poor deer for years by reckless shooting: and I beseech them to keep in mind, when getting near the end of their stalk, the words—one hundred and fifty yards."

M. G. WATKINS.

THE SYSTEM OF MEZZADRIA.

IN these days, when the possession and the participation of land is so prominent a subject of discussion, I think that a few words upon the Italian land-laws will be acceptable; and I have seen of late so many incorrect allusions to and deductions from imperfect conceptions of the system most accepted in Italy—the system which is called the *mezzadria*—that I imagine it may be well to place a more correct description of this system before the public in England. A little while ago a clever Liberal journal declared that everywhere throughout Europe save alone in Great Britain the peasant had a fixed right to the soil, and spoke, as many others have done, of the Italian *mezzadria* as though it were a sort of communism. No idea can be more erroneous; and nowhere, I think, is the right of the landlord enforced more stringently, or do the customs allowed him remain more strongly coloured with feudalism, than in Italy, where the *mezzadria* so largely prevails and is so imbedded in the national habit that no other land system would be tolerated in the country generally and Tuscany in especial.

The peasant, in law styled *colono parziario*, in common parlance *contadino*, is supposed by the journalists of the English press to be a part-proprietor of the soil and to have inalienable rights thereto. In point of fact the *colono* is only a tenant paying in work instead of money and dismissible at will at any pleasure of his master's, the dismissal being only subject to the law thus far, that it must be given at the close of the agrarian year (November), and must allow a year's warning or notice. The *colono parziario* is defined in law as "one who cultivates land under the obligation to divide the fruits thereof": *parziarius colonus et lucrum et damnum cum domino fundi partitur.* The contrast between peasant and landlord is defined by Marosini as "one bilateral; in which the one side accords the soil to be cultivated, and the other is obliged to cultivate it for a quarter of its proceeds." But in this contract there is nothing which prejudices in any manner weakens the landlord's right to the soil, or confers on the tenant anything more than a passing and partial possession of it.

The peasant, entering upon the farm he has engaged to cultivate, is bound by the law to furnish : first, *bestiame*, that is, all animals needful for agricultural labour, and in sufficient number, to provide manure sufficient for the soil ; second, all instruments and objects needful for cultivation or production, such as forks, spades, waggons, spinning-wheels, ox-carts, and to maintain all these in due order ; third, one half the seed necessary for sowing, this last is an innovation under the new Code or *Patria Codice* ; fourth, all expenses needful for the cultivation of the fields and the harvesting of its produce: when he requires a helper, he must pay for one. As well as this, he must make any necessary plantations, keep clear all ditches, drains, and water springs ; must fetch and carry all materials for repairs, and take what is required to his master's house, and, what is still more onerous, must execute all work ordered by his *Commune* on the public roads adjacent to him. These are his obligations : in return he has a right to one half of the product of the soil ; but the mulberry leaves belong to the landlord alone, as do the woods, with the exception of such wood as the *colono* may need for fuel, for vine-stakes, or any other farm-purpose ; in the woods he may pasture his animals, but must not sell any wood or dispose of dead wood without his *padrone's* permission ; neither can he cut the grain or gather the grapes or the olives until his *padrone* gives permission and indicates the date.

It will be seen, therefore, that the position of the peasant under the laws of *mezzadria* is by no means one of liberty ; still less does it resemble in any way a semi-proprietor's hold on the land. He has no hold whatever, and is subject to dismissal at any moment ; then, though he must receive notice from November to November, he cannot work upon the farm after March ; when he has found a new farm he must live on the old and go and labour on the new from March to November. When the old and the new farms lie far apart, this of course entails great additional fatigue upon him. The *colono* in his own household is master ; his sons and daughters, other relatives perhaps, and his *garzone*, or helper, are all obedient to and dependent on him, but each has a right to an enjoyment in the proceeds of the common labour, except the *garzone*, if there be one, who is paid and fed. In turn, the *massaro*, or *cappocia*, as the head of the house is called, is subject to the landlord even in matters of domestic interest, and there are unwritten laws between them which are as binding as any in the Code. No one of the sons can marry without the landlord's permission ; and, what is harder, must marry whether he *wish it or no*, if the landlord think any other woman is wanted on the

farm. This seemingly intolerable interference with personal freedom is submitted to quite meekly, so great is the force of habit.

A young man I know was yesterday abruptly ordered by his *padrone* to get a wife because another woman was wanted in the house ; though he knew none whom he liked, and though he and all his family were strongly averse to having a new inmate, he went dumbly off to the municipality with a girl chosen for him by his master. As a rule, the marriages of the peasantry are made for them by their masters in a rough and ready way, as those of Napoleon's officers were arranged by his iron will. A young man could of course refuse ; but as the refusal would be followed by the dismissal of him and his, it is a thing of which no one ever dreams.

Another youth that I know was happy and prosperous in a service he preferred to husbandry ; his father was a *colono*, and as one of his brothers died, his *padrone* ordered him back to fill the vacant place ; he went submissively and left the career he preferred for ever. If he had not gone, his father would have been sent off the farm. It never occurs to the Italian that this is tyranny : he is by nature docile and submissive. In return, all the exhortations and intimidations of the Code do not hinder him from cheating his landlord in all manners and at all seasons whenever he gets a chance. It is his mode of self-compensation.

The chief protection that the law gives him is that if he have debts he cannot be put in prison for them (*i.e.* cannot be hindered from working), and his instruments of labour cannot be sold by any creditor except by his landlord. Any right to the soil it does not give him ; and it recognises but very slightly any title of his to compensation for improvements that he may have made. Last year a hard-working family that I know well was dismissed from a farm they had occupied for five-and-twenty years because the estate had changed hands and the new owner fancied new people. In this instance the *massaro* had with his own unassisted labour cleared a large area of oak-scrub and planted it with olives ; he received no compensation for his exertions, which were only bearing their first fruits as he was forced to leave them, and he dared not have recourse to law, which is so precarious and costly that its very name is terror. He found a fresh farm some seven miles off, and from March to November had to tramp with his family to and fro, night and morning, over these seven miles between the two farms ; living perforce on one, working perforce on the other. It is his son who is now being compelled to marry as I have described above. The sons, indeed, are under great subjection, both before the law and by the

force of habit ; for if the head of the family be in all things subject to his master, so is no less the son to the father. By the supreme decision of the High Court of Florence so late as 1868, it was finally decided that the son could not be even the associate (*socio*) of the father, but must ever remain under the paternal jurisdiction and authority; and that the son is legally bound to help the sire affectionately in all labours agricultural, and must be content to receive from his progenitor nutriment and support without even demanding account of the fruit of his work. The famous lawyer, Bandi, laid down as law that to recognise any equality as associates (*socii*) between father and son was to lessen all paternal authority, introduce the spirit of speculation, which would swiftly destroy the spirit of affection, and would put an end to that harmony which alone renders the family moral and happy. "Filius non esse socius patris . . . inter patrem et filium civilis obligatio oriri non potest et pater una eademque persona cum filiis est" (Mihaliarius). "Inter patrem et filium simul habitantes operam et industriam conferentes non censetur civitas societas; nam inter patrem et filium civilis non consistet obligatio . . . inter patrem et filium unam efficientem personam ministerio juris, non consistit societas" (Lanchius). The father of the family has a dominion quite absolute over all those forming his household. No appeal against his orders or his arrangements is allowed. He on his part is bound always to keep in view the general good, always to act as becomes a *padre de famiglia*, and always to compel each to perform his or her due portion of labor without favour or hindrance. "Institorem eam debere in negotiis socialibus adhiberi diligentiam, quam bonus paterfamilias assolet in rebus propriis praestare. Hoc igitur officium instititoris faciendi utilia et inutilia praetermittendi" (Lanchius).

On the other hand, as I have shown, the *padrone*, as the landlord is called in common parlance, has great and severe powers over the *massaro* and his household; and although the law decrees that he shall not molest vexatiously and needlessly his *contadini*, yet the law allows him all right to control and direct the manner of agriculture because, as it is expressly said, the owner has a perpetual interest and the cultivator only a temporary one, in the land. This is precisely the view of property in land which is so much disputed in these days, but which has never been contested in this the oldest of the agricultural countries of Europe. The right of the proprietor is protected in every way by the law, and it is considered that the master of the soil is the natural person to ordain the treatment that the soil shall receive. Of such liberty as the tenants now clamour

for in England, not to say Ireland, nothing is known or recognised in the *patris Codice*. The right of the landowner passes before all others. Even, as I have shown, a considerable exercise of what in other countries would be considered as tyranny is allowed to him in consideration that (the soil belonging to himself) he will be injured irrevocably if it be dealt with ill. This is surely a juster view than that taken by the modern method of sacrificing the landlord *in toto* to his tenants and their interests.

Whether the *mezzadria* be a system under which the landlord really obtains all he might obtain out of his estates is another question. Italians are wedded to it for the most part, and Tuscans will not even contemplate the possibility of any other mode of culture. When, as in times past, the peasant families dwelt on the same lands for many centuries, and affectionate and feudal ties connected the *massaro* with the *padrone*, the results of the system were, no doubt very much more beneficial to both than they are now, when the *contadini* are constantly changed, like any other servants, and in lieu of any personal attachment have only a keen self-interest to guide them. Even upon estates where the *coloni* remain unchanged, the whole system is poisoned by a third factor, of whom the law takes no cognisance save when it says that the agent of the landlord is to be accounted as equal in the right to direct and order with the landlord himself. This third factor is the *fattore*, or bailiff. It is not too much to say that this intermediary is the curse of the rural communities and the cause of most of the ruin that befalls Italian nobles and gentlemen. All the powers that the law accords to the landlord he delegates to his steward. By law the master is the person who is to keep all accounts of debit and credit between himself and his peasantry, all record of work done and of value received. Actually, of course, these are kept by the *fattore*, who, residing close to the farms (for if a landlord have several estates he has several *fattori*), is always on the spot to see what is done and what is spent or made. The indolence and the amiability of Italian gentlemen have combined to let entire power slip into the hands of these agents or bailiffs, and if the *massaro* suffer extortion at their hands of the steward, none the less does the *padrone* suffer from wholesale robbery. It is a common case to see the gentleman grow poorer, the steward grow richer, every day. In one instance that I know of, the *fattore* has bought his master's estates! In every relation of life the Italian, gentle and simple, submits to a dominance that would drive any other man into rebellion in twenty-four hours, and the submission of the landlord to his agent is only one phase of this.

universal servitude. As in Italy, the son of fifty years will still be under the hand of an imperious mother, and the weary and disgusted lover will yet bear passively the incubus of a secretly detested mistress, so the landlord will from habit and from indolence allow himself to be made the prey of a rapacious and energetic middleman standing for ever between him and his peasantry to the injury of both. Of course, the methods of the *mezzadria* lend themselves to this speculation of the steward, and facilitate it in a far greater degree than the system of tenantry by money-rental would do. It is impossible for any gentleman having half-a-dozen estates in half-a-dozen parts of a province to check in any effectual way the returns made from them by their respective stewards. An enormous amount of thieving is carried on by the *fattore* which is beyond punishment, even beyond detection, and the peasantry take him all the first and best fruits of everything as a propitiatory offering. If a *colono* complain to his master, his complaint is generally referred to the *fattore*, and might as well never have been made. That under these circumstances, and with this middle-man for ever between them, the relations of landlord and cultivator remain as amicable as they are, is due to the good nature and courtesy of the former and the docility and good temper of the latter. It is often urged by foreigners that the *mezzadria* produces an agriculture scarcely advanced since the days of Virgil and very wasteful and unproductive. I am not concerned at this moment with this side of the question, though I may say in passing that I am convinced high farming will never be suited to Italy with its intense sun and its parching soil. All I have sought to show in these few pages is the actual working of the agricultural laws in Italy, and the legal lines upon which they are traced. Because, it is surely noteworthy that in a country which cultivated its fields when all the rest of Europe was a wilderness of marsh, or moor, or forest, the rights of the landlord are recognised and protected in the clearest manner; and that even in Italy, where the laws of primogeniture have been abolished and a new national life has been commenced, the interests of the landowner are still considered paramount, and are allowed an absolute and even arbitrary power, which is defended by law and conceded by custom without a murmur from the body of the peasantry. This recognition of the supreme right of the owner of the soil over the soil appears to me much juster and much healthier than the communistic clamour for the cultivator thereof to push out and supersede the possessor. That there are many abuses under the *mezzadria* system is not to be denied; that the lot of the peasant under it is often hard and thankless is often true; but the

rural life in Italy is a sane and wholesome one, and the relations of the labourer and the master are on the average cordial, and marked by courtesy on the one side, docility on the other. That it is a remainder of feudalism is not to be denied; but, though the *contadino* is not sufficiently protected against change and caprice on the part of the landlord, and though the landlord will not or cannot protect himself and his people from the oppressions and extortions of his steward, yet this one healthful and honest fact is always recognised in the system of the *mezzadria*—the owner of the soil is the undisputed master of it.

QUIDA.

SCIENCE NOTES.

AN IMPROVEMENT ON THE CHANNEL TUNNEL.

THE merits and the demerits of the proposed Channel Tunnel were very fully discussed lately at the Society of Arts, and among other suggestions was that of Dr. Siemens, who proposes to suffocate the enemy by pouring a small rivulet of hydrochloric acid upon lumps of chalk, and thereby generating carbonic acid.

Assuming that a sufficient number of unfortunates can be found to supply the enormous capital required for digging the tunnel, I think I could improve upon the carbonic acid suffocation by a much simpler and more effectual application of chemical science. A few gallons of bromine in a glass carboy, connected with a device for breaking the bottle, would do it at once. No army could survive the resulting vapour which would be immediately given off, and would presently fill the tunnel with horrible fumes. I once spilled less than a quarter of an ounce in the midst of a class of young ladies, and we all had to make a hasty retreat, though the room in which the accident happened was a rather large one.

But this, and the carbonic acid, and the dynamite, and the flood-gates, and all the other devices for killing the supposed enemy, are equally open to the objection so clearly stated by Mr. E. A. Cowper—viz., that if the arrangement is kept ready for immediate operation it may "go off" by accident at any time, and thus despatch a trait or two of passengers; while, on the other hand, if it requires any elaborate preparation, it is likely to be frustrated by military vigilance.

I have been looking out for a counter project to the tunnel, expecting it to be proposed by some enterprising engineer; but, as he does not come forward, I will now propose it myself.

This is to do all the philanthropic, cosmopolitan, fraternising, and other sentimental business, so eloquently described by Sir Edward Watkin, by means of a ship canal connecting Paris with London *via* the Seine. Seeing that the carriage of pork from Chicago to Liverpool costs less than its carriage from Liverpool to London, *the commercial advantages* of direct water communication between

the two cities would be far greater than that obtainable by any further development of the already overdone railway monopoly.

There are absolutely no difficulties in the way of such a canal, either from Folkestone or Dover, or Newhaven (for Dieppe), to London. It would be cut through soft chalk all the way, and not a single lock would be required beyond the entrance of the tidal basin that should form its mouth. Two or three short tunnels, or deep cuttings, across the Downs, are the only costly work to be done. By commencing at the sea end, all the material of the cuttings could be loaded on barges at once, carried out to sea, and then discharged; or shipped to ports where limestone is in demand. If I am not mistaken, one-half the capital required for the Channel Tunnel would suffice.

Besides communicating with Paris, such a canal would supply London with sea-water for baths and other purposes, thus covering all the conduit schemes that have from time to time been projected for this purpose.

If to Newhaven, it would open a route for all our shipping trade to the Mediterranean, to the Cape, and from London to Canada and America, by cutting off the tedious tidal journey of the river, and the dangers of the Straits of Dover, the Goodwins, &c. I have myself spent five weary days in a clipper schooner between Beachy Head and Blackwall, and vessels are sometimes detained for two or three weeks by fogs and east winds when homeward bound, or west winds when going outwards. Whole fleets are commonly to be seen lying at anchor in the Downs between the Goodwins and Deal.

I am not speaking of a petty gutter like the Paddington Canal, but a cutting worthy of the maritime greatness of Great Britain, and fit to connect its metropolis with all the southern and western regions of the world, by an unbroken water way, wide enough and deep enough for half a dozen ships to pass at once, and walled to resist the wash of screws and paddles.

On the French side, a canalisation of the Seine between Paris and Rouen, and a cut of thirty-five miles to Dieppe, would complete that route; or from Boulogne or Abbeville, the Somme and the Oise would be utilised. Compared with the existing *Canal de Midi*, with its ninety-nine locks, either would be but a trifle. London is on the sea-level, and Paris is a small trifle above it. The barriers between the sea and either capital are inconsiderable.

Probably the French would display no remarkable eagerness to co-operate in a scheme affording them no military advantages; but putting them *aside altogether*, the saving of time, tugging, pilotage,

and risk on all our vast navigation to and from London via the Channel, would amply repay the fifty miles of chalk cutting between Newhaven and Deptford Reach.

THE BIRTH OF THE MOON.

I ASSUME, as a matter of course, that all who read these Notes have read Mr. Proctor's paper on this subject in the last number of this Magazine, and that they agree with me in appreciating the great value of such contributions to the intellectual progress of the present generation. Proctor is doing for the English-speaking peoples, and Flammarion for the French, what has never been well and widely done before, viz., bringing the most sublime results of mathematical demonstration and mathematical speculation within the reach of all intelligent men and women.

We all have a natural tendency to exalt our own special branch of study, and this is perhaps desirable. It appears to me that mathematicians are prone to go further than others in this direction; the usual assumption being that whatever has been demonstrated mathematically must be infallibly true. No mathematician of corresponding attainments is more free from this or any other form of scholastic dogmatism than Mr. Proctor, and yet this mathematical self-righteousness crops out occasionally, as in the paper above named, when referring to Mr. Darwin, he says, "the reasoning relating to the part of his views does not belong to the sure domain of mathematics but to speculation."

This reads oddly when closely following a description of how Adams, "twenty years or so ago, discovered a notable flaw in Laplace's reasoning," which was purely mathematical; and further that both Leverrier and Pontecoulant have rejected Adams' results, the latter "even denouncing Adams' method of treating the subject as analytical legerdemain."

All this was in "the sure domain of mathematics" of the pure and highest order, and among mathematical giants; the difference of result was quantitative, *i.e.* mathematical, and not a mere fractional percentage, the result obtained by Adams being "only one-half what Laplace had made it."

Such instances of error to which mathematicians, like all other human beings, are ever liable, enforce the necessity of continual verification of mathematical conclusions by comparing them with facts revealed by observation and experiment.

I will thus examine the conclusions of Darwin and Ball as to

er their liquid surface like whiskers on the cheeks of an
ent.

as, if I understand the theory rightly, at or about this period
parturition of satellites occurred, according to Darwin and
somewhat earlier, according to Proctor. All agree in attri-
the detachment of the satellite fragment or fragments to the
turbances of the sun. They differ only as to the mode of
n of this agent. As the tide-raising power varies "not as the
square, but as the inverse cube" (see page 680), it is evident
planets near to the sun must during their youth have suffered
greater tidal disturbance, or moon-generating agency, than the
stant, and therefore should have by far the largest families of
k. Applying this test to the theory, it breaks down completely;
ead of the satellites increasing in numbers with the proximity
planets to the sun, the opposite is the case.

two nearest planets, Mercury and Venus, have no satellites ;
l, our earth, has one ; then, farther on, Mars has two ; Jupiter,
ed by a great gap, has four ; Saturn, still farther, has eight,
the multitude of pebble-moons forming his rings. Thus far the
e in direct and nearly quantitative contradiction to the theory.
is we know, Uranus and Neptune have not the multitude of
s required for establishing a law of increase with distance from

I say, "so far as we know," because their distance is so
at if they had hundreds of such satellites as those of Mars we
at see them with any telescopic help at present available

Man presents another contradiction to those subsequent proceedings of the satellites which the theory expounds. The solidity of Mars is that of a middle-aged planet, according to the theoretical description of planet-growth; but the position of its satellites so near to their primary is quite juvenile. The theory imperatively and mathematically demands that the distances of both Phobos and Deimos from their primary should be far greater than observation has proved them to be.

THE PHILOSOPHY OF MANURING.

A READER writes for further information on this subject, treated in a Note in the March number, to which I must now refer in order to save repetition.

First. Should the weed refuse be dug in fresh, or in the decomposed condition produced by lying in a heap?

From a strictly economical point of view it is desirable to dig in the fresh weeds, seeing that their decomposition in a manure heap must be attended with some loss of carbon, of ammonia, and of heat, all of which are so useful in the soil itself. But there may be an objection to this; for if the weeds have grown far enough to bear seed, or if they consist largely of plants with an underground stem (like couch grass, otherwise named "squitch"), their burial is followed by a troublesome resurrection. Therefore, some judgment is required in suiting the proceedings to the particular case. Generally speaking, the late autumn crop of weeds should be heaped and afterwards buried in the following spring, but the early young weeds buried on the spot at once, by simply hoeing them in.

Second. Should the refuse of a certain crop be the manure for the same kind of crop?

This follows from the principle laid down of restoring what is removed from the soil. Of course, the whole cannot be restored thus when any is used, but in most cases the refuse far exceeds in bulk and manurial value the useful portion for which the crop is cultivated. This is strikingly the case in all kinds of sugar cultivation, pure sugar itself taking absolutely nothing from the soil, as explained in previous Notes.

Liebig tells the story of the poor vine-grower who could not afford to buy manure, and in despair carefully buried the trimmings of his vines close to their roots. He obtained thereby a good crop. In this case he returned a considerable proportion of the potash he had taken from the soil, this being the element which the vine s

largely removes, but of course the soil lost all that was taken away by the grapes.

One of my pedestrian trips in Italy was during the most disastrous prevalence of the *oidium*. The manner in which the grape failed in its growth before the fungus was visible on its skin, led me to suppose that the vines succumbed to the parasite from weakness due to exhaustion of the soil.

The general experience of vine-growers is very instructive. On one hand, we find records of partial and complete ruin from exhaustion due to neglect of manuring; and on the other, of mischief following as a direct consequence of ordinary manuring. This was the case with the celebrated Johannisberg vineyard while in the possession of General Killerman.

Thanks to the French Academy of Science, the prevailing error that attributed this to "over-manuring" has been dissipated. It was not the *quantity* but the *quality* that was in fault. To the unscientific farmer, dung and manure are synonymous terms; and if he has supplied the ground with customary muck, he supposes that he has done all.

This is sound for the grazier, who has to return what the animal takes away; but with such a crop as grapes, which removes so little ammonia and so much potash, the addition of nitrogenous manures is useless, and may even be poisonous. If all the trimmings of the vine and all the wine lees (grape skins and stones), plus as much potash as is contained in the precipitated argol (crude cream of tartar) and in the wine, are returned to the vineyard, its fertility will be uniform and perennial, provided its soluble material is not washed away by rains.

But there is an internal source of potash that must not be forgotten. Certain rock constituents, such as felspar, contain potash so combined that it can only dissolve out very slowly as the felspar decomposes. When the soil of a vineyard rests on a highly felspathic granite or similar rock, it may thus be fed from below with practically inexhaustible supplies, and its grape-producing fertility retained, even when the potash of the grape juice is carried quite away, provided this operation does not proceed more rapidly than the weathering of the rock restores it.

My theory of the appearance and prevalence of *oidium* for a few years in certain districts, followed by its apparently spontaneous disappearance, is that, in the first case, the potash supplies have been overtaken by abundant harvests; and in the second, they had been restored by the gradual decomposition of the felspathic material of

the soil or under-rock, during the compulsory fallow of the oidium period.

The above-named observations of the oidium were chiefly made on the Plains of Lombardy, the soil of which has been laid down by ancient glacier and torrent débris from the granitic Alps. It therefore contains vast stores of felspathic detritus that is very slowly giving up its potash in soluble form. Hence its fitness for the vine. But even this may be overtaken.

The above-stated principles apply to domestic gardening. If all the weeds and all the stalks of peas, beans, &c., waste leaves of cabbages, rhubarb, and similar refuse be returned, the ground only loses what is actually eaten. This may be fully restored by giving to the soil the domestic refuse otherwise carted away by the dustman.

FAIRY RINGS.

You demi-puppets, that
By moonshine do the green sour ringlets make,
Whereof the ewe not bites.

SCIENCE has been scarcely more explicit than Shakespeare concerning the identification of these mysterious demi-puppets, although many attempts at explanation have been made. In spite of this, I have a theory of my own, which, halting though it be, I here expound.

I occupied during a few years a house on the slope of the Hope Mountain, near Caergwrle, in Flintshire. The house is named "Celyn" in the Ordnance maps. It commands a fine view of the Alyn valley and country beyond. The most conspicuous of the pasture fields displayed below had no fairy rings during the first and second years of my residence in the Celyn; but on the third a large crop of them came into existence. They were arranged in orderly rows, and so conspicuous that they forced themselves continuously on my attention—were, in fact, almost irritating by their persistent appeals for explanation. They worried me thus every day from the September of one year to the July of the next, excepting when the snow was on the ground.

I walked down frequently to the field and examined the troublesome things, finding them always the same—viz., nearly true circles and composed of coarser grass than that surrounding them, and times with a crop of small fungi dotted over them. They vary very little in size, were about six feet in diameter—too small

have been the track of any tethered animal—but they evidently had received some kind of special manuring.

Suddenly, on one bright July morning, the mystery was solved. A crop of grass had been mowed, tossed, and winnowed, and was now in cocks ready for carrying to the stack. The circumference of the base of these cocks corresponded almost accurately with that of the fairy rings; their numbers and arrangements were nearly identical; some of the cocks actually covered the area enclosed by the ringlets of the demi-puppets.

Then I remembered the history of the last year's harvest on that particular field. A weary continuance of drenching rain commenced just when the grass was cocked as now, and it remained thus on the ground for several weeks, until almost black with fungoid rotting. Here, then, was the explanation. The juices of the rotting grass had been washed down the slopes of the cocks, and with these juices were the fungus germs that "soured" the ground.

There would thus be effected a sort of special or differential manuring of circles, having outside diameters corresponding to that of the base of the cocks, and a thickness of ring equal to the depth of penetration and drainage of the rain.

The last year's history of this field was impressed on my memory by a small triumph of *dilettante* science applied to agriculture. My own grass was cut at the same time as the grass of this opposite field, and both were cocked on Friday in splendid weather; but I had observed a steady fall of the barometer, and accordingly employed extra hands, and made a great bustle to get my hay carried on Saturday—worked till midnight—thereby amusing considerably my neighbours who were professional farmers. The fine weather continued through Saturday and on till Sunday night, when the rain began and continued, with the disastrous results above described.

I hope this Note may induce others to repeat my observation by looking for these fairy rings, and, when they find them, enquiring whether any kind of heap of vegetable matter formerly occupied the area included within their circuit.

THE COLOURS OF WATER.

ON the 6th of February last a paper was read at the Royal Society by Mr. John Aitken which "led to a considerable discussion among the Fellows." The subject was the varying colours of water, which have been explained rather learnedly by selective reflection, selective absorption, and polarisation of light. Mr. Aitken's ex-

planation is much simpler, and closely approaches to my own, published five years ago in "Through Norway with Ladies." I there described particularly the waters of the *Jolster Vand*, which, seen from a short distance, appear of inky blackness. I have observed the same in other lakes. All these black lakes that I have seen in Norway, Scotland, Ireland, &c., are fed by rivers that flow through peat bogs, and dissolve from the peat a sufficient amount of bituminous matter to give the water when examined in small specimens the appearance of weak tea. The chief feeder of the *Jolster Vand* is as dark as very strong tea.

I have examined such water by looking through different depths, and find that its depth of colour goes on increasing proportionally; that these variations of tint are correctly represented by taking a solution of asphalt or common coal tar in turpentine, and painting it on white paper. A thin film stains the paper to about the same depth and character of tint as is shown by a tumbler of water dipped from a peat torrent, or from a bog pool; another coat over this represents the colour shown by looking through a greater thickness of the bog water, and so on until the blackness of the original pitch is obtained. The same is observable by looking through sections of the pitch itself. Thin films are semi-transparent and have the colour of strong tea, which grows darker with increased thickness and opacity. All this is due to invisibly minute particles of black carbon suspended in a resinous medium.

Thus the black colour of deep lakes fed by streams containing a weak solution of bitumen in water is well explained, and further observation has satisfied me that all the other varieties of the colour of water have a similar simple origin.

Water containing yellow particles *in suspension* is more or less yellow according to the quantity, and with white particles it is corresponding white. This is very grossly shown by the waves that break on the sandy and chalky shores of our south coast. I say grossly, because here the particles are big enough to be separately visible, and nobody can dispute the visible cause of the milkiness and pea-soupiness. When, however, the particles are so small as to be separately invisible, much keener observation is necessary. If any of my readers should visit the west coast of Ireland, they should carefully observe the waves that break upon the grand rocky barrier extending from Loop Head to Galway Bay, notably about Kilkee and the Cliffs of Mohir. There is no sand nor shingle here, and the water appears transparent; but the caverns, arches, and other torturings of the rock by the waves prove that they wear it away, and

Therefore must contain the minute particles they rub off. These waves, especially in rough weather, are not merely blue or green like ordinary sea-water, but are of deep indigo-purple, a colour magnificently displayed by contrast with the white foam of the breakers. A slice of the rock cemented to a piece of glass with Canada balsam and then ground down till translucent, displays the same colour as the water. Such sections are commonly made by microscopists.

I could name a multitude of other similar cases, as, in the course of my solitary pedestrian wanderings, I have noted again and again the deep ultramarine colour of a multitude of torrent-fed lakes and tarns filling the hollows of dark slaty rocks, or where gneiss or hornblende abounds. Allowance must always be made for the reflected colour of the sky shown in certain positions.

Other lakes are as nearly colourless as an imperfectly transparent liquid can be, and contrast remarkably with the intensely blue lakes above named.

All such colourless water that I have seen has either been supplied by the surface drainage of siliceous rocks, subject to little or no torrent grinding, or by springs passing through hard limestones. These contain limestone *in solution*, but no suspended coloured particles.

The most remarkable of the first that I now remember is the Achensee, a Tyrolese lake, with water so transparent that taking a header into it from a steep bank demanded quite an effort of resolution; it seemed like a suicidal plunge over an aerial precipice.

The fountain of Cyane, the source of the Anapo near Syracuse, is a deep pool welling from the limestone; it is so clear, so colourless and air-like, that floating in a boat and looking down at the pebbles, seen with microscopic distinctness 40 or 50 feet below, is suggestive of sitting in the car of a balloon.

It is well known to observant mariners that the wide ocean itself, far beyond the sight of land, varies considerably in tint. Sea-water has been justly described as "a weak broth," on account of the large quantity of organic matter, chiefly spores and microscopic zoophytic life, that it contains. If I am right, its colour is due to these, and must vary with them.

TABLE TALK.

LAWLESS LONDON.

IN a famous passage of "Paradise Lost," descriptive of the devils worshipped as gods in Syria and Egypt, Milton furnishes a gloomy picture of the London of his day. It is impossible to doubt that he has in view the extravagances and crimes perpetrated by the Mohocks when, speaking of Belial, he writes —

In courts and palaces he also reigns,
And in luxurious cities, where the noise
Of riot ascends above their loftiest towers,
And injury and outrage: and when night
Darkens the streets, then wander forth the sons
Of Belial flown with insolence and wine.

Our streets have become again familiar with similar scenes. It is no longer, however, the aristocrat, as in the days of Milton, who maims, or it may be murders, the unarmed citizen. It is, I am sorry to think, a section of those working classes who have hitherto been in this country the most law-abiding and even the most law-defending class. That the lawlessness which after nightfall blocks up the readiest mode of communication between Westminster and Eastern London, and renders other streets in quiet suburbs almost as dangerous as Hounslow Heath in the olden days, must be put down, is universally conceded. Often in the night hours have shrieks of "murder" reached my ears when sitting in a house which overlooks the Thames Embankment, but at a distance sufficiently great to take away any chance of rendering aid, were the cries real, and not, as ordinarily assumed, sounds uttered in mirth or derision by some benighted reveller. The only mitigating circumstance, if mitigating it be, is that the crimes committed seem to be accomplished with no purpose of robbery. They are ordinarily the work of young men, in whom the man's strength backs up the boy's cruelty and love of mischief.

THE REMEDY FOR JUVENILE VIOLENCE.

I AM afraid, if we are to bring about a more peaceful and certainly more desirable state of affairs, we must discourage some proceedings which are supposed to be indicative of English

Such amusements as town-and-gown rows, for instance, be put down, and the boy must be taught that it is not his duty to fight. What are called "boys' books" present as if to be copied lads always redressing wrongs. In his hurry to these Crichtons of the schoolroom, the boy cannot afford to let a wrong to redress, so he "dresses" another boy just weak enough to deprive the operation of danger. When a child of seven

years, I went to school in a large town. The passage through a certain district, in which was a school supposed in some previous manner to be at war with that I attended, was to us always a matter of constant alarm and some danger. We called these, I remember, Duncan's Bulldogs, and our adversaries were known as Hiley's Mastiffs. Very faint hearts, I promise you, were some juvenile bulldogs as they skulked past the mastiffs'

The notion of feud about nothing must, if possible, be avoided. Difficult enough, I know, will be the task. If we could, and can also induce our magistrates to regard in a more lenient light those offences against the person which they now visit with posterously inadequate sentences, we may see a more satisfactory and less dangerous state of affairs.

POETICAL INGENUITIES.

THAT branch of literature which Mr. Dobson has studied and illustrated with success in his "Literary Frivolities," and more recently in his "Poetical Ingenuities and Eccentricities," has a charm for some minds, and for my own mind among the rest. Many as are the instances of clever parody and happy allusion that Mr. Dobson has gathered, a rich harvest remains yet to be reaped. In the works of the Broughs, which seem slipping out of the hands of Frank Talfourd, now forgotten by all but a small circle who regard him as a wit of the first water; and even of some living poets, like Mr. Blanchard, are delightfully quaint and mirthful specimens of burlesques and mock-heroics. The more important specimens of literary trifling—if the words 'important' and 'trifling' can be joined—are the subject of very erudite studies. I possess two good and substantial volumes on the Cento, by that elegant and

amiable scholar, Octave Dèlepierre, which first saw the light in the Philoblibion Society, and have since been reprinted; and the same writer has given a not less erudite treatise on Macaronics. Both these works are, however, in French, of which language, as Belgian Consul, Dèlepierre was necessarily a master. Meantime I hope Mr. Dobson will go on collecting these literary trifles and arranging them in volumes which are delightful to read and must always be dear to the curious.

EPPING AND ITS INNS.

THERE is no cause to fear that Epping Forest will lose the character it enjoys as a place of purely popular resort, or that, following the precedent established by royalty, the aristocratic world will flock to visit it. Very beautiful are, no doubt, some portions of the scenery, those, perhaps, especially which are farthest from London; and such names as Theydon-le-Bois and Havering-atte-Bower—the latter parish is, I fancy, not in the forest—are enough in themselves to lure the traveller. Still, the country is inferior in pastoral charm to that which can be found near Windsor and Ascot. What, however, will most deter visitors is the character of the inns. I have wandered over much of the forest, and have found it almost impossible to get anything except the kind of food supplied when visitors flock in overwhelming numbers. To light upon a village public-house in which home-cured bacon, new-laid eggs, and fresh milk can be obtained, is as difficult as to find an hotel capable of cooking a good dinner. A cup of tea, with eggs from London, a most sparing allowance of thin milk, and other not more appetising viands, may be obtained, and have to be consumed in the midst of the other visitors to the house—who, though generally good-natured, are sometimes of questionable sobriety. A cosmopolitan myself, and used to rough quarters, I find no fault with this state of affairs. Still, it is worth while informing those who feel disposed to visit what to the majority of West-end folks is a *terra incognita*, of the kind of treatment to be expected. Given fine weather, a pic-nic in the middle of the week to High Beech or the more remote glades of the forest may be highly enjoyable. To obtain privacy together with shelter would however, involve previous arrangements.

MEMORIALS OF THE PAST GREAT.

FROM various quarters remonstrances against the destruction of the memorials of past great men are constantly sent to the newspapers. Now it is Mr. Alfred Austin bewailing the probabl

on of Shelley's house on the Bay of Spezia; now Mr. Brett, pleading for the retention of the house in which Turner executed his best known work. Sentimental grievances cannot be allowed to interfere with the requirements of a city like London, the inhabitants of which increase at so marvellous a rate that the widening of streets is continually necessary. It is obviously not expedient, moreover, to keep all the houses tenanted by men of eminence, since by mere processes of decay the building erected by a Chaucer or a Gower will fall to pieces. In the plan I have lately proposed of fixing up mural tablets to indicate the residence of great men—a system which, I am happy to find, has received warm approval—is to be found the best if not the only way of preserving the memories of departed greatness as satisfy our instincts of hero-worship.

The only objection I see to the scheme is that it will put an end to the occupation of the most amiable of modern humourists. It does not further indicate one whose practice it has always been to have as a companion, in a walk through any district of London, by pointing out to him with that especial quarter all historical and biographical facts which his memory could recall. In my more youthful days, I had the privilege of being the companion of this amiable, if not always trustworthy, friend. As such, I found seven different houses pointed out as the scene of the death of Chatterton, before I became absolutely blind.

NOISE AND STUDY.

RETURNING the other day from Malvern, I broke my journey, as I always love to do, at Oxford. But few hours had I in this attractive and picturesque of English cities. They were, however, to intensify a feeling of astonishment, not unmixed indignation, I had experienced at my last visit. While resting here a few years ago beneath the hospitable roof of St. John's, I found my slumbers regularly broken at daylight by a steam horn, as tough to awaken the "seven sleepers." Bad enough any-where, but unbearable in a town supposedly devoted to study, was this noise. It was as nothing to what I experienced on my last visit. At the present time, every vendor of a newspaper patrols the streets of Oxford armed with a bell of portentous dimensions which he rings incessantly. As there are at times as many as half-a-dozen of these demons in the same street at the same time, and as they ring all in different keys, the clangour is simply indescribable. I did I take refuge in the Clarendon, with the hope of solacing myself with dinner in that eminent and most respectable hostelry.

For the reason, I suppose, that strangers are believed to be in especial need of newspapers, the hotel was the subject of a perpetual siege. In the end I simply gave up the combat, abandoning my intention of remaining in Oxford until the following morning, and came to town to sleep. Harrowing enough to the jaded Londoners are muffin bells, tramway bells, and church bells. Such a discord as prevails in that venerable abode of learning, Oxford, is I think elsewhere unknown.

OXFORD, THE RINGING ISLAND OF RABELAIS.

"SWEET city with the dreaming spires," Mr. Arnold, in an inspired moment, called that bewitching place which every man who has known its shelter is bound to love. Sound indeed must be the sleep of the spires if they can dream through such hubbub as now exists. Had things in the sixteenth century been as they now are, I could have believed that Rabelais had taken from Oxford his idea of the "Ile sonnante." It would be easy still to find traces remaining of the *Siticines*, who were translated into birds, and became *clerghawks*, *priesthawks*, *bishhawks*, &c. Very unlike—so far as regards the sources of information at his command—*Braguibus*, the *petit bon homme*, *natif de Glenay*, who instructed *Pantagruel* and his comrades as to the significance of the clamour in Ringing Island, was the hotel waiter—a *petit bon homme natif*, *apparemment, de Cork*—to whom alone I could apply; and the meaning of the indecency of such illegal noises being allowed in a city like Oxford I could not learn. All but omnipotent is in a University town the rule of the college dignitaries over civic affairs. What has come over the "Dons" I know not, but, altering Byron, I feel inclined to ask—

Are their ears grown deaf or their hearts grown cold?

All I know is, that a place less fit for the residence of a student than Oxford now is cannot easily be found.

A HIGHLAND TOUR.

I HAVE frequently been struck by the large number of Englishmen who, familiar with almost every nook and corner of the Continent, know little of England itself, and still less of Scotland. It is a hackneyed remark (originating probably in the north) that many Londoners derive their only ideas of the "Scotch natives" either from the oysters of that name, or from the wooden and kilted figures one occasionally sees, in the attitude of snuff-offertory, at *tobacconists' shop-doors*. Yet, a trip down the Caledonian Canal—

really a chain of [lovely lakes—or a sail up Loch Lomond
ride by rail from Glasgow), a drive through the Trossachs,
on Loch Katrine, will show the tourist that within the
of Britain there is scenery which, as I heard an outspoken
remark last year, “licks the Rhine into fits.” To those
aders who are in any wise hesitating about the selection of a
holiday-tour, let me recommend the “Royal Route” to the
Highlands, carried out by Mr. David Macbrayne of Glasgow.
Inerant friends will take the mail from Euston at 8.50 P.M.,
be landed in Greenock next morning in time to step on
magnificent a steamer as they have ever seen. This is the
ba.” Away from Greenock at a rate of 20 miles an hour,
cleave the waters of the Clyde, first breakfasting on board—
Macbrayne *cuisine* is everywhere perfection, and the salmon
one have sent Mrs. Gamp into an ecstasy. Through the
Bute to Ardrishaig we pass, and then another Macbrayne
with funnel red below and black above, takes us through
an Canal, where the “Iona” will bear us to Oban, redolent
in Black and of John Stuart Blackie. Oban is a kind of
ne centre. One day you can go in a Macbrayne steamer to
affa, and back, and see the old Cathedral and the wondrous
shell” cave. Another day you will take boat for Banavie,
n away you fly up the Caledonian Canal to Inverness.
if so minded, you may take train to Aberdeen and return to
own place” by sea or rail, as you please. Or if you care not
circular tour, Mr. Macbrayne will board and lodge you for
as you please on one or other of his nice red-funnelled
s sailing to Stornoway, and calling at Portree, Tobermory,
idness knows where besides. You will live like a prince (I
om experience), and you will inhale ozone enough to clear
e mental fogs and cobwebs of all the rest of the year. I can’t
inking that the name of Macbrayne must be better known in
ielands” than even that of the Prince of Wales; and I know
the Gaels swear by “Muster Macbrayne,” and the red funnels
ing them into contact with civilisation and likewise with the
withal” of the Southron and Sassenach.

UNCONSCIOUS PLAGIARISM.

is curious to see how history repeats itself, it is no less
teresting to note how ideas are reproduced, often un-
nally no doubt, but still with amazing accuracy. We have
d of the recent case of alleged plagiarism of the story of a

novel in the manufacture of a play, and it is difficult to pronounce any opinion on the merits of such a case, simply because outsiders are forced to take the statements of the two sides, and to endeavour to strike a balance of probability between them. But those cases of resemblance which are the most interesting, are decidedly those in which it is to be presumed there has been merely an unconscious following in the footsteps of another. Such a case I have recently stumbled across. There is a little-known poem of Robert Burns, called "Let not woman e'er complain," which certainly might have formed a model for a song of Mr. W. S. Gilbert's in his "Trial by Jury." Here is the Scottish bard's song—

Let not woman e'er complain

Of inconstancy in love;

Let not woman e'er complain

Fickle man is apt to rove.

Look abroad through nature's range,

Nature's mighty law is change;

Ladies, would it not be strange

Man should then a monster prove?

Mark the winds and mark the skies,

Ocean's ebb and ocean's flow;

Sun and moon but set to rise,

Round and round the seasons go.

Why, then, ask, of silly man

To oppose great nature's plan?

We'll be constant while we can—

You can be no more, you know.

Now, for the sake of comparison, here is the verse of Mr. Gilbert—addressed, of course, to the unsympathising jury—

O! Gentlemen, listen, I pray,

Though I own that my heart has been ranging,

Of nature the laws I obey,

For nature is constantly changing;

The moon in her phases is found,

The time and the wind and the weather,

The months in succession come round,

And you don't find two Mondays together.

(Chorus.)

It seems quite evident that, without necessarily the slightest acquaintance with Burns's poem, Mr. Gilbert has written a song which in spirit is simply a reproduction of the sentiment in the Scottish bard—opinions which, alas, he acted up to, with what grievous success let anyone who wishes to learn read Mr. R. Louis Stevenson's last volume of essays, "Familiar Studies of Men and Books." As Mr. Stevenson hails from the "Land of Cakes," and is therefore "a brither Scot," it will not be presumed that he sees the peccadilloes of "rantin', rovin' Robin" through prejudiced spectacles.

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AUGUST 1882.

DUST: A NOVEL.

BY JULIAN HAWTHORNE.

Only the actions of the Just
Smell sweet and blossom in the Dust.

CHAPTER XVII.

WHEN Mr. Grant got to the door of the building, he found Sir Francis Bendibow awaiting him there in a small but turn-out with two horses. He took his seat beside Sir Francis on the box, and the footman sat behind, with his arms folded. In this fashion they drove westward.

The baronet knew how to make himself an entertaining companion, and he made himself one on this occasion. He talked freely and genially, giving his companion all the gossip of the day of that day, which, somehow, seems to have been more interesting and eventful, and to have possessed more character and depth than is the case in our times. The footman with folded arms had often listened to his master's conversational sallies, but had never heard him so agreeable as on the present occasion, and in fact the gentleman his companion who said very little, but

amicable drive; and the weather and the roads were all that could be desired.

Their way led through Richmond, and across the grey stone bridge that divides that town from the parish of Twickenham. "When you ride home to-night," said Sir Francis, "you'll find it an agreeable change to follow the Isleworth road, on the west bank of the river, and cross by Brentford Bridge. Mighty pretty, quiet stretch, and only a trifle longer, if at all." The footman could have told exactly how much farther it was; but, of course, held his peace, as he would have done had the baronet affirmed it to be two miles shorter. Still bowling easily westward, the horses tramped through the narrow winding street of a sleepy little town, wearied out, as it were, with the burden of its historic associations, and drew up at last before a wrought-iron gateway in a high brick wall, the bricks cemented with green moss and covered with ivy. The gate having been promptly thrown open by the alert footman, the horses tramped through it, and up the gravelled curve of a drive, overshadowed with fragrant lime-trees, until their driver pulled them up before the gabled portal of an elderly but comfortable and solid-looking edifice, faced with white plaster, and dignified by far-projecting eaves. Tossing the reins to the man, Sir Francis got actively down, and assisted his friend to alight. They entered the house arm in arm. A large, cool, shadowy hall received them: beyond, a broad staircase, and opening inward to the right of it, a vista of a spacious drawing-room, with windows opening upon a verandah and a rich lawn at the back of the house.

"Serve dinner at six sharp," said Sir Francis to the obeisant butler. "Now, my dear Grant, there's to be no ceremony here, you know: but I remember your fastidious habits. If you want to wash your hands, give yourself the trouble to follow me upstairs, and I think you will find everything arranged to make you comfortable."

"Uncommon civil the guv'nor is to-day," remarked the butler to the footman, when the two gentlemen had disappeared in the upper regions. "Who *his* Mr. Grant, I'd like ter know?"

"Ha! you may arsk that, Mr. Tuppin," returned the footman with airs of superior knowledge. "You may arsk that, and no blame to yer."

"Well, I does hax it," answered Mr. Tuppin brusquely; "no that I supposes you can tell me anything about it, neither!"

"Ha! per-raps not," retorted the footman, abandoning the vague of mystery for the definiteness of imagination. "Per-raps t'car 'em conversin' as we came along, and the gent a-sayin'!

arf a millium as he was wantin' to invest, and could the wise 'im on the subjeck ; and the bar'net he says, says 'e, ten per cent. interest is any use to you, my dear friend,' fancies we can take it hoff yer 'ands and no questions. And the gent said as 'ow 'e'd think about it."

hat's the story, is it?" said Mr. Tuppin, pushing up his eye—turning down the corners of his mouth. "Well, I thought 'e'd been somethin' new. But as for that, my good fellow," turning away indifferently, "Sir Francis was talkin' about her no longer ago than day before yesterday. I 'eard 'im

assertion the footman was unable to frame a reply ; being whether to credit his ears with miraculous inspiration, or Mr. Tuppin with being a liar. The former course being agreeable both to his vanity and to his self-interest, he adopted it.

instead of being served in the dining-room, which was a part of the house, and commanded no pleasant outlook, it was in the drawing-room, whence, through the open window, they could let their eyes wander out upon the expanse of silken and verdurous masses of whispering foliage. A sentiment of calm and imperturbable repose was expressed by this quietude ; not the vacant or helpless repose of wild nature ; but that comes of over-ripeness, or of containing more than it can hold. The quaint ghosts of past times walked the deep shadows of the turf and lurked beneath the shadow of the trees.

"Some parts of the world are better to live in, perhaps, than others," remarked Mr. Grant ; "but the place to die in is here." "Is that? to die in? Time enough to talk of dying twenty years," exclaimed the genial baronet.

"Twenty years is a long time to wait," replied the other medical man. "The time to leave life is when you find it pleasant, but not when it is necessary. My old interests are ended ; I should not like to become absorbed in new ones. Not in this world, at all

the servant here entered with the after-dinner wines.

"I can't afford to lose you yet awhile, my dear friend," said the baronet heartily ; "now that we have got you safely with us we mean to keep hold of you. What do you say to our going for wine out yonder on the lawn? Yes—Tuppin, take out two or three and a couple of chairs. Such weather as this ought to be made the most of."

"And by the way," he resumed, after the change had been made, and they had been left finally alone in their seclusion, "talking about living in England—where do you propose actually to settle? Of course, I assume that you've no notion of remaining permanently in your present quarters—not even if you have designs on the widow—eh? Ha, ha!"

"Possibly not; but I have no other definite plans touching a dwelling," replied the other, fixing his eyes coldly on the baronet.

"To be sure, if your coming back to England was as unexpected to you as it was to us, your plans might well be a bit . . . undigested!"

"Why, as to that, I doubt if there was any moment during my absence when I did not cherish the purpose of returning; and 'tis at least a year ago that the date of my departure from India was fixed. What should happen on my arrival was, indeed, another question."

"Upon the whole, you know," said Sir Francis, crossing one leg over the other, and caressing his shapely thigh, "I rather wonder at your having remained so faithful to us. You were well enough placed in India, I suppose? Seems to me I'd have stayed there. What could you expect to find over here? One's acquaintances get pretty much used up in twenty years."

"I acted according to my feeling, as every one will do who acts freely. Considerations had weight with me that might not have affected another in my place."

"Ah, I understand. The Marquise, eh? Parental affection, and all that! Well, does the Marquise reciprocate?"

The baronet's tone was somewhat strained in saying this, and his countenance wore a smile that was anxious and perfunctory rather than spontaneous and genial. But Mr. Grant appeared not to notice the alteration.

"I can't say I have been disappointed," he replied; "perhaps because I expected little. The little girl I left in your care has grown up to be a woman of the world, wealthy and fashionable, and naturally not much given to sentiment. She has fascination, ambition, and strong common sense: she is adventurous, quick-witted, and independent. I perceived the germ of these traits in her long ago; but I also saw—or so I fancied—a passionate and generous heart, which I believed would counterbalance whatever was dangerous in her other qualities. Doubtless it was this hope which partly influenced my determination to return to England."

"Ah! a passionate and generous heart . . . well! And my

quire whether the lady fulfils your anticipations in that regard?"

Mr. Grant did not at once reply; but after a while, with his eyes thoughtfully on the turf, he said slowly, "Making due allowance for accidents and circumstances, I don't think my estimate of her was a mistaken one."

"Except my congratulations then," rejoined Sir Francis, with a somewhat heavy laugh. Presently he added, "I am to understand, then, that in order to gain the sympathy of this noble and generous heart, you have not spared the reputation of the lady's foster-father?"

Mr. Grant looked up quickly and keenly. "I made no such allusion," said he.

"But you can't deny the fact?" rejoined the baronet sharply.

After a short silence Mr. Grant said, "I am not concerned either to deny or admit it."

"Well, well, you're quite right; there's no use disputing about it. Fillmore—another sympathetic confidant, I presume?"

"As a man of business, I found Mr. Fillmore everything I could

rely on, and who is to be next? I'm interested to know, you see, as to the persons who are henceforth to behold me in my true colours."

"Or perhaps you intend to be impartial in your favours, and wish the matter broadcast?" Sir Francis said all this with a certain ghastly jocosity. "I want to hear just what I'm to expect, Mr. Grant. That's no more than fair, eh?"

"Does it not occur to you, Frank," said the other, turning fully towards him, while the colour rose in his face, "that what you are saying is extremely offensive? Has my past conduct towards you on any grounds to adopt this tone to me? You try my patience, sir! I . . . I shall not, however, allow myself to be provoked. By a manifest effort he in fact controlled his rising heat, and strained himself to an austere coldness.

Mr. Grant, he appeared not to wish to provoke his guest further. Either he was afraid of him—and there was a stern fire in the part of the uniformly serene old gentleman which did not encourage wanton experiment—or else there were other reasons why he desired rather to conciliate than to irritate. "I expressed myself clumsily, Charles," he said; "'pon my word I meant nothing insulting. But, you see, a man wants to know where he stands—where he's to look for his enemies, and where his friends. Now, we're not going to rake up the old matter

between us, eh? For good or bad, that's done with. The wrong that was done can't be mended now; you can't mend it, nor can I; I would if I could, in a moment. Time has arranged things after its own fashion. I did whatever I could for the wife and child, didn't I? I stuck to Perdita till she got a good husband; and then it was she left me, not I her. You . . . well, you made your way in the world; and perhaps, if all were known, you're in a better position to-day than you would have been if all this had never occurred. But your turning up so unexpectedly has put a new face on the affair—eh?"

"In what manner?"

"Why, in this way—but you mustn't mind my speaking out: we know each other well enough not to stand too much on ceremony, I suppose?"

"Say on, sir."

"I understand human nature as well as most men—I ought to, after my experience—and I don't expect too much of it—not even of you, my dear Charles. I can put myself in your place, and see things in your way. Quite right and natural that you should wish Perdita to feel towards you as a daughter would wish to feel towards her father. And, of course, as to Fillmore, it might be necessary, in transacting your business with him, to enter into certain explanations: for Fillmore has his crotchets, and isn't the man to go into anything he doesn't, in a certain way, approve of. But allowing all that, I must consider my own position as well. I'm compromised; and, taking into consideration my age and yours (not to mention other things), it makes me doocidly uneasy. I'm willing to believe you mean me no harm; but others might not be so considerate. I'm not half sure of Fillmore's goodwill; and as for Perdita . . . you can't trust a woman at the best of times."

"I wish to point out to you, Bendibow," interposed Mr. Grant "that you are proceeding upon an assumption of your own. You assume that my daughter and Mr. Fillmore know our secret."

"Appearances sufficiently warrant that," said the other, with a dry laugh; "and, what is more, you have not denied it."

"No; I have neither denied nor affirmed it," returned Grant coldly.

"Quite right of you not to commit yourself. But passing that over—if you really intend me no mischief, it would relieve my mind to have some tangible proof and pledge of it."

"In the first place, have you had any occasion to suspect me unfriendliness since my return here?"

"Hm! nothing very definite, perhaps. But it would have seemed more amicable, for instance, if you'd deposited with us instead of with Childs."

"That is purely a matter of financial judgment. You cannot expect me, who know what your business practices are, to have the confidence in your financial orthodoxy that I have in Childs's. Moreover, I did leave a thousand pounds in your hands, precisely in order to avoid all occasion for remark."

"And if it were a hundred thousand, you might have it back again with interest to-morrow!" exclaimed Sir Francis, with some vehemence. "But that's not our subject," he continued, after a moment. "You have something in your possession which—if we're to be friends—you can have no objection to making over to me. You know what I mean."

"Do you mean the letter that you wrote me at the time of the —?"

"Never mind the details," interrupted the baronet, in a lowered tone. "Yes, that's it; that and the other papers . . . you know."

"I certainly shall not surrender them to you," said Grant with decision. "Your only use for them would be to destroy them. They are my only safeguard. My right to my own property, as well as my personal security, might depend upon them. You talk of mistrusting my goodwill. You would need to be a far more trustworthy man than you have ever shown yourself, Frank Bendibow, before I would place myself so helplessly at your mercy."

"You won't let me have 'em, then?"

"On no account whatever. I am immovable upon that point. You remember that the possession of those papers was the condition of my acting as I did at the . . . twenty years ago. The same considerations that influenced me then have at least equal weight now. You must be content with some other pledge than that. But were you an honest man, you would ask no other pledge than my own word."

"Listen to me, Grantley," said the baronet in a husky and uneven voice; "I'll swear to you by all a man holds sacred, if you'll give those papers to me I'll never take advantage of you. I'll go down on my knees and take any oath you please—I'll do it at this moment if you say so. Think of it, man! Suppose anything were to happen to you—that you were to die suddenly, say. Those things would be found and read; and what should I—but it's not that—it's not myself I care about. If the worst comes to the worst, I shall know how to deal with myself. But there's that boy of mine—poor little

fellow! I love him better than my own soul, or anything else. I'd rather you shot me dead here where I sit than that he should ever think ill of his father. All I live for is to make him happy, and to leave him an honourable name and fair prospects. And if, after all I've hoped and done, he will get any wind of this —! I can't endure to think of it," exclaimed the baronet, his voice breaking.

"You're the same Frank Bendibow I knew in the old times," said the other sadly. "I cared a great deal for you then, and I don't know that I'm quite cured of it even yet. The worst about you is, you make yourself believe your own deceptions. I cannot do what you ask; I should risk interests and obligations which I can't discuss here. But I may be able to make some compromise with you. The papers might be given in trust to some third person in whom we both have confidence—to Fillmore, for example —"

"Fillmore be damned!" cried the baronet violently, striking the table with his fist, while his face flushed dark red. "I'll have no compromises; I'll trust neither you nor Fillmore nor any one! How do I know what plot you may have been hatching against me this very day? Will you give me those papers or will you not? Yes or no?"

"I can only repeat that I will not," answered the baronet's guest gravely.

"Then! — But, oh, for God's sake, Charley," said Bendibow, his tone abruptly changing from menace to entreaty, "think of my Tom. You're a father yourself; you —"

"Hadn't we better put an end to this?" interrupted the other, with an accent between compassion and scorn. "You need not fear for your boy, nor for yourself either. The papers are in no danger of being made public, except by my voluntary act; and it depends entirely upon you whether that ever becomes necessary. I always carry them upon my own person: they are in a sealed envelope, addressed to a friend, who, on receiving them, would, after taking certain precautions, destroy them. In case of my dying suddenly, therefore, your interests would suffer no detriment. That's all I have to say; and now, if you please, we'll dismiss the subject."

"You always carry them about with you?" repeated the baronet, in a muttering tone, his eyes averted.

"I have them on me now. Isn't it getting a little damp out here? My Indian experience makes me cautious."

"It's a cloudy night: there'll be no dew," responded the baronet absently. "Certainly, we'll go into the house. I have some curious old prints I should like you to look at. Stop a moment! I say,

it's all right ; it's all right, old fellow ! I didn't mean any—
The fact is, my head is not always quite right, I believe. I
ed away—damme, I ask pardon if I've offended you. Shake
th me, Charley !” He stretched out his hand and grasped
r's, which he shook hard and yet mechanically, then letting
abruptly. “Life's a queer business,” he continued with a
“One gets cornered into doing things he wouldn't have
himself capable of ; it's all circumstances—fate ! I'm no
nd no better than others, as far as I can see. Come in—
to my study. The evening hasn't begun yet.”
must be thinking of turning homewards. It will be a dark

onsense ; I shan't let you go before ten or eleven. Besides,
e you're to ride won't be ready for a while yet. Come,
e I'll think you bear me a grudge. You've had it all your
y, so far ; you should give me my turn a bit now—eh ?”
I willingly stay a little longer, if you wish,” said the guest
usly.

at's right. I won't let you leave me with the idea that I'm
and a bully. We used to hit it off pretty well together in
times. We'll have the old times over again for this one
—eh ? just as if nothing had happened.”

herewith Sir Francis quite threw aside his dejection and
patjon, and became remarkably vivacious and agreeable.
It had occasion to admire, more than once, the man's really
ficial and mental powers. Two or three hours passed rapidly.
At once, Sir Francis complained of severe twinges of pain
ght leg and foot.

at damned gout of mine !” he exclaimed ruefully. “Ah !
all up with me for the next day or two. Ah ! may I trouble
ring that bell ? Tuppin—here, Tuppin, I've got another
See that everything in my room is ready. Whew ! Well,
ow, I'm sorry our evening should end so. Better luck next

n I carry any message to your physician ?” asked Grant, who
n to take his departure.

, no, I have everything here : and I shall have to fight it
ere's no hastening it. Ah ! Good-bye, then, till our next

Tuppin, see that—ah ! see that Mr. Grant's horse is
to the door.”

ie 'orse is quite ready, if you please, Sir Francis,” Tuppin

"Good-bye then, my dear Grant—good-bye. The lower road, you know, through Isleworth : the lower road, eh?"

"Yes, I know : good-bye, and a speedy recovery to you," answered the other ; and with a kindly look at his suffering host, Mr. Grant left the room under the respectful guidance of Tupper, and descended the stairs ; and having bestowed a gratuity upon the worthy butler, he mounted his horse, and rode away into the summer darkness.

CHAPTER XVIII.

IT now becomes our duty to follow for a while the fortunes of Mr. Thomas Bendibow. This honest and prosperous young gentleman, had he been as familiar with the text of Shakespeare as he was with those of some other dramatic authors, might have compared his plight to that of Prince Hamlet, when the noble Dane was in a state of collapse at the spectacle of the domestic revolution which followed so hard upon his father's decease. Though never exceptionally dutiful in his filial relations, he had a genuine fondness for the author of his being, and allowed no liberties to be taken with his name and character by any one besides himself. But since the reception at the house of the Marquise Desmoines, and the conversation that he had overheard there, his mental attitude had undergone a dolorous transformation. What were his other failings? Tom had always possessed the honesty and fearless candour that belonged to his idea of a gentleman, and had never thought of questioning his father's proficiency in the same virtues. Even now, he could not bring himself fully to adopt the inferences which obtruded themselves upon him. Further information might modify the aspect of the case. Nevertheless, an uncertainty as to whether the modification would be for the better or for the worse hindered the young gentleman from putting the matter to the test ; moreover, he recoiled, when it came to the point, from directly questioning the baronet on a subject that seemed to involve the latter's honour. The degradation of such a situation would be mutual. Therefore poor Tom nursed his despondency in secret ; when all at once it occurred to him, as an illumination from on high, to seek sympathy, and perchance enlightenment, from the Marquise. He did not allow this inspiration time to cool, but proceeded to act upon it at once. With his ostensible purpose in visiting her may have mingled another, not the less dear because not *openly avowed*, and which we, as well as he, may leave to its *own development*. So, at about the hour when Mr. Grant and Merton

Fillmore were having their interview in the lawyer's office, Thomas Bendibow, Esquire, caused himself to be announced at Madame Desmoines.

Perdita happened to be in a delightful humour. She had, indeed, a singularly even and cheerful temper, the result of an habitually good digestion, and of a general sense of the adequacy of her means to her ends. Yet she too had her moments of especial loveliness, and this was one of them. She was sitting in a chair by the window, with her hair drawn up on the top of her head, and arranged in flat curls on her forehead. She wore a thin black satin gown, charmingly disposed about the throat and shoulders; a book lay open on her lap, and in her white hands she idly held a piece of embroidery, on which she might be supposed to be at work; though in reality she had taken hardly a dozen stitches in it that afternoon. She was languorous and dreamy.

"Ah, Tom!" she said, stretching her arms above her head, and parting her smiling lips in a pretty yawn, "how pleasant to see you. Poor boy! my pleasure is your pain."

"Eh? Why do you say that?" he enquired, stopping midway in the ceremonious obeisance he was making.

"Your face said it first. So pale and sorrowful! Poor child, what is it?"

"I am not a child, Perdita," said Tom with dignity.

"You are not civil, sir."

"Not civil—to you?"

"It is not civil to remind a lady of her age. I like to remember the time when you and I were children together, Tom, and to forget the years that have passed since then."

"Oh, to be sure! I didn't think of it in that way: and I hope you'll forgive me," said the youth repentantly. "I wouldn't hurt your feelings for the world, Perdita—upon my soul, now, I wouldn't! But as to my being a child, you know . . . in a certain way I should like to be that—for your sake, I mean, so that you needn't imagine you're any older: but in another way—as a matter of fact, that is—of course I can't help being a man, and feeling it. And in that way, I should like to have you feel it too: because what I feel for you isn't at all what a child would feel, don't you see: and . . . and I hope you understand me!"

"There is a good deal of feeling in what you say," returned the Marquise, with innocent gravity: "but I am not sure I understand what the feeling is about. Is it about yourself?"

"I don't believe," said Tom, with melancholy emphasis, "that

there's a fellow alive who could feel anything about himself when he's with you: at least, except to feel that he felt . . . "

"There! See how mysterious you are. I'm afraid you're chaffing me," put in the lady, delivering Tom a glance that might have upset an ascetic of seventy.

"Oh! This is too bad—and I can't stand it," cried Mr. Bendibow with a groan. Then he burst out: "It's you I feel about, Perdita, and I don't care who knows it! I've met lots of women in my life, and . . . all that sort of thing: but I never met a woman like you, and there isn't such another in the whole world: and if you would only . . . look here! Can't you feel that way for me? Oh, do!"

"Oh, Tom, is it really about me?" exclaimed the lovely Marquise, in the tenderest warble of a voice. She folded her hands in her lap and gazed at him with a hesitating wonder; as if, in the first place, she had that instant realised the fact that such a person as herself existed; and secondly, was struggling to comprehend so incredible a circumstance as that another person should exist who could regard her otherwise than with indifference. Miranda upon Setebos would have appeared a sophisticated woman of the world beside the Marquise at that moment.

Having allowed this shaft time to rankle, she proceeded: "But why do you ask me whether I feel for you? You know I love you, Tom: I have never tried to disguise it."

"You love me! Oh, Perdita!" cried the young gentleman, fairly breaking into a giggle of happiness.

"Of course I love you: how should I not?"

"But you know," said he, suddenly becoming grave with a momentary misgiving, "you know, I mean marrying—husband and wife, you know."

"Ah, well, now I do understand you," returned she, with a smile of radiant sympathy. "You mean to marry, and you are going to tell me all about it! Sit down here beside me and begin. Is she worthy of you, Tom? But first tell me her name."

"Her name?" faltered Mr. Bendibow. "Why, it's you!"

"I must be very stupid," said the Marquise, with an air of perplexity. "I meant to ask you what was the name of the lady you intended to marry?"

"Don't I tell you, it's you? Who else could it be, since we both love each other?"

"You, Thomas Bendibow, marry me!" she exclaimed, assuming an aspect of mingled amazement and indignation: and she added, *with a tragic tone and gesture*, "You are trifling with me, sir!"

my confidence, and twist your sister's words in this way! I never trust another man as long as I live—no, never!”

“I never thought of it in that way . . . and besides, you're my sister at all!” cried Tom, from pale becoming very red. “I know very well that my father is no more yours than he is my father's. If you don't want to have me, you ought to go on some fairer ground than that. I've offered you the most I can give to a woman, and I was in right dead earnest too; I think you might take it so.”

“The Marquise, having played out the little comedy of the *ingénue* and her satisfaction, was now ready to deal with the matter on a less sentimental basis. “Sit down here, Tom,” she said, “and look at me, my dear. Yes, I am a beautiful woman, and I am wise—at least ten times as wise as you will ever be, Tom; and I have seen the world—the whole world; and . . . I'm a widow! All the finest gentlemen of my age have made love to me. I knew you would be fancying me, and I lost your heart to me, too; and I wished, for both our sakes, to settle the affair over as soon as possible. You could no more be my husband, my dear, than you could wear the moon on your watchchain. My husband—if I ever have another—will be a man wiser, stronger, and more handsome than I am; a man who can rule me with a word or a look, like a king of men—and that is more than a king of nations. How can you expect to come to being such a man as that? You and I go to church together, and a priest might pronounce the marriage over us; but it would take a great deal more than a priest

ned back in the chair, and folded and unfolded the work with her eyes downcast. She had evidently forgotten all. That unfortunate youth sat staring at her with burning little he cared about his father, or anything else, in connection with her! And she would never be his! Tom suppressed and felt the hollowness of life. He longed to do something extraordinary, heroic. Not to forget himself in dissipation—

her too truly for that; but to rise to the level of such a might worthily possess her. Since that happiness could be his, to deserve it would be the next best thing. And perhaps all, no achievement could be so arduous and heroic as to be her friend—her true and unselfish friend. Some day she would value him at his true value and thank him. She should be made to feel that he was not a child, and that he was something more than a child. Hereupon Tom felt an aching in his throat, and two tears fell down his face; he surreptitiously wiped them away.

"Will you do something for me, my dear?" said Perdita, looking

Tom nodded, not wishing, just at that moment, to trust his voice. "This thing will have to be cleared up some time," she continued, "but it might as well be now. You can help me already, you see. I can do nothing without you. You shall be my friend and my confidant. If that man is my father, I must see him again, and find out . . . whatever he has to tell me."

"What shall you do when you have found out?"

"Then we can consult together, since we are both interested."

"If there should be anything wrong about my father——"

"We will arrange to have it kept secret. Mr. Grant—or whoever he is—cannot profit by any public revelation; and I'm sure I can tell Sir Francis nothing but good. I should have preferred not to let the matter come up at all; and I told Mr. Grant as much; but since others know it, I must; and it must be settled definitely."

"What shall we do?"

"You go to Mr. Grant and tell him, . . . or stop! I'll write a letter for you to take to him. You'll find him, I suppose, at the Lockhart house in Hammersmith. Give the letter into his own hands. Will you do that for me?"

"I wish I could die for you, Perdita," was his reply, with a look of stern emphasis that made it impressive.

She glanced sidelong at him, and drew in her breath with a half-sigh. He was an honest fellow and loved her truly. Perhaps she was sorry, for a moment, that she could not love him. For it is the

pleasure of fate to turn the affairs of lovers topsy-turvy; and even as redoubtable a marquise as Perdita might one day find herself discomfited in somewhat the same way that Tom was now. However, fate is fate, and cannot be defeated.

"I love myself too well to send you on any deadly errand," she said, following up the sigh with a smile. "Shall I write the note now?"

"Yes, if you'll be so kind. My mare needs exercise, and I shall like to ride over to Hammersmith this evening. 'Tis not six o'clock yet."

So Perdita sat down and wrote her letter, and gave it to Tom, and also gave him her hand to kiss. But he said, "Not yet, if you please; I couldn't kiss it the right way."

Perdita said nothing. But after her rejected suitor had departed, with her letter stowed away in the breast of his coat, she looked in the glass, and murmured, with a queer little laugh, "Is that a blush that I see!"

Tom marched home with a solemn and dignified air, and, having caused his mare to be saddled, he mounted her and set out for Hammersmith on the errand which, neither to him nor to Perdita, seemed to involve any deadly peril.

(To be continued.)

ALEXANDRIA.

WE were nearing the ancient land of Misraim and the far-famed city of Alexander the Great. On the horizon flashed every spark—

A ruddy gem of changeful light,
Bound on the dusky brow of night.

The morning star had not yet paled before the dawn, and no reality was visible to dull our early illusions. A vision rose before me of an old picture-book, over which we pored in our childhood, showing a mighty tower 1,000 cubits high, built in divers parts like some huge telescope, with an outer winding stair by which beasts of burden could ascend to the very top, bearing fuel for the beacon fires which blazed in a vast lantern, with reflecting mirrors so arranged that the light was visible for a hundred miles. The mirrors acted a double part, as they reflected the ships approaching Egypt while at so great a distance as to be still perceptible to the eye.

It was all built of the finest stone, with pillars and galleries and ornaments beautifully wrought in marble, on which (you remember the old story) the architect Sostratus engraved his own name in hieroglyphic characters, and then, overlaying these with cement, thereon a frail memorial of the fame of Ptolemy, his master.

The lighthouse, surrounded by a strong sea wall, was built on the Isle of Pharos, whence it derived the name which it has transmitted to a thousand descendants. It formed the natural pivot of that great harbour which the wise Alexander conceived might acquire such vast social importance as the outlet of commerce between the eastern and western worlds.

So here he himself planned the city, designing it in the form of a Lacedonian cloak, which, however, should cover eighty furlongs (in other words, it was fifteen miles in circumference); and his soldiers strewed meal to mark the line where its walls were to rise. At his bidding, temples, obelisks, palaces, theatres, gymnasiums were built—the old story said 400 temples, 4,000 palaces, 4,000 public baths, and 12,000 shops for the sale of vegetables only).

There was one broad main street with a vista of shipping at either end—for it extended in a direct line from the Lake Mareotis to the Mediterranean—and another broad street intersected this at right angles; and both these great streets were adorned with stately colonnades, running the whole length of the city.

In short, the glory of Tyre was here reproduced; and Heliopolis was no longer to be the chief seat of science. During the 300 years that the Ptolemies held sway, all sages were drawn to Alexandria by the encouragement given to learning of all kinds: arts and sciences, poets and philosophers here found a welcome, such names as that of Euclid being of the number; and though the Egyptians were conciliated by the building of magnificent temples, the restoration of their ancient monuments, and of many of their old forms of worship, the more graceful manners and customs of Greece were generally adopted; and the highest favour the Government awarded was to admit any person to the rank of Macedonian citizenship. To such an extent was this carried that whenever the inhabitants met in public assembly they were addressed as "Ye men of Macedonia."

It was not only to the faith of the Egyptians that the Ptolemies showed such toleration. Alexander himself had shown the utmost favour to the Jews, and had induced a vast number of them to become citizens of Alexandria by granting them equal privileges with the Macedonians. The first Ptolemy is said to have imported a hundred thousand more as captives, many of whom he raised to high offices of trust. About a hundred years later, however—that is to say, about two centuries before Christ—the high priest at Jerusalem excited the wrath of Ptolemy Philopater (who had offered large sacrifices and given valuable gifts to the Temple) by refusing to let him enter the Holy of Holies, whereupon the vengeful king returned to Alexandria, determined to destroy all the Jews in the city. He caused multitudes of them to assemble in the arena, where they were delivered up to wild beasts. The legend goes on to tell that the discriminating lions refused to touch the Jews, but made large havoc of the Greeks.

Meanwhile the learning both of Jews and Pagans continued to flow to Alexandria. It was by command of Philadelphus that the Hebrew Bible was translated into Greek, and that those seven hundred thousand precious volumes were stored up in the great library.

So it was a great, busy, learned city—the emporium of mind and matter for the eastern and western worlds, the combined Liverpool and Oxford of heathendom. This state of things continued till the

Christian Church established itself here, and strove to carry matters with a high hand; then followed shameful riots in the name of religion—the Christian monks *versus* the Pagans. At length the Arabs, under Omar, captured and plundered the enfeebled city (A.D. 638), and ere it could in any measure recover itself a second capture by the Turks in A.D. 868 completed its destruction. So now we find only a modern semi-European town, with hardly a trace of all the former splendour; and the wail of Ichabod! Ichabod! may well find echo amidst the mounds of rubble and ruin which surround the modern city in every direction.

Of the mighty Pharos, some ruins remained in the twelfth century; but of the spot where Alexander was buried by his favourite general (Ptolemy) there is no trace; and of the precious library not one leaf remains.

The more valuable works on mechanics, astronomy, medicine, and all other branches of science and literature were stored in the museum, which was accidentally destroyed during the war with Julius Caesar, when Egypt became a Roman province.

The remaining volumes, numbering 700,000, were kept in the Temple of Serapis, and consisted chiefly of theological controversies; they were destroyed by the conquering Saracens, A.D. 640, the bigoted Caliph Omar declaring that the Koran was all-sufficient reading. Consequently they were used as fuel for the 4,000 baths, and are said to have sufficed for that purpose for several months. I suppose papyrus must have predominated over vellum, for I do not think the old MSS. in most charter-rooms would make a blaze in a hurry! For twenty years after this cruel burning the empty bookshelves remained in the great library, to mock the grief of all wise and learned men.

And of the great Temple of Serapis, and its 400 pillars, what trace remains? One solitary column, now known as Pompey's Pillar—a monolith of red granite, sixty-eight feet high, with base and capital about thirty feet more; and as it stands on rising ground near the sea, it still acts as a landmark to sailors as they approach the low, flat shore, where long rows of windmills are grinding away, as if they could not work hard enough.

Through the purple haze, that lends a dreamy beauty of its own to the dull, barren coast, we discern those ever-turning sails, mingling with a forest of masts, telling how the ships of many lands are once more crowding the Alexandrian harbour. These all merge into our dream-world, and we picture to ourselves how, in days of old, this same harbour was crowded with gay galleys, freighted with women

from all parts of the known world—chiefly from the Grecian Isles and from Syracuse (distant about a thousand miles)—who had assembled to celebrate the great Festival of Adonis and Astor, whose statues they carried through the city in joyous procession, strewing flowers and perfumes by the way.

Another memory, of more modern days, and of dearer interest to "a Britisher," comes over us as we near the shore—the memory of Nelson's great victory, when, in Aboukir Bay, he found the whole French fleet awaiting Napoleon's return from the battle of the Pyramids, and manned by well-nigh 10,000 men. When morning dawned, two frigates were all that remained to enable the mighty conqueror to return to "la belle France."

Conceive the horrors of that night, when the huge old *Orion* with her 120 guns, caught fire, and in the darkness of midnight came the roar which deadened the din of battle, and the fearful glare which lighted up the whole bay. Then sudden silence fell on both fleets, and not a gun was fired, while all watched for that awful explosion which they knew must come—when "burning ropes and flaming timbers flew high in mid-air, and shattered bodies and torn and blackened limbs of many a gallant mariner fell on the decks of the neighbouring vessels or into the seething waves." Among those victims were the gallant *Casa Bianca* and his brave boy.

As we draw near the quay, we note a summary method of dealing with an extortionate dragoman, who, determined to cling to his victims to the last, has ventured to step on board the boat which is to carry them back to their ship. One strong back-hander, dead without the slightest apparent effort, and he is submerged. In a moment he rises to the surface, and is restored to dry land by amused spectators; when he stands quivering with impotent rage, his splendid Eastern eyes flashing fire, and with hands and arms gesticulating, and action all over, he pours forth a stream of imprecations on the laughing young Englishmen, whose boat meanwhile has pushed off, and placed them beyond reach of his wrath and his knife. Not of his memory, however, should they ever return to that neighbourhood; and that "*La vengeance se mange bien froide*" is a proverb which doubtless has its counterpart in Eastern tongues.

The confusion on landing is amazing, the noisy crowd consists of representatives of every nation—black, white, brown, yellow shouting and quarrelling, all contending for us and our luggage. At last we are safely deposited in an African hotel, and gain our first experience of cold, barn-like rooms—for so they seem to the outworn *bound*. On our return from India we think it so generous of

hotel-keeper to provide us with bedding and sheets and towels, that we feel these same rooms to be luxurious quarters.

There are no bells, but attentive Italian or German waiters are on the alert ; and are extra attentive if addressed as if they were human beings. I confess I felt touched and gratified when, twelve months later, we occupied these same rooms, and the only cheery soul that wished us a happy new year was one of these same men, whose face gleamed with kindly recognition on our arrival.

We were in the Hôtel d'Europe, which has the advantage of capital balconies overlooking the Grand Square, and the tank where all manner of picturesque life congregates : groups of stately Bedouins, who rest here awhile, while their camels stand swaying from side to side, impatient to return to the desert ; half-naked Arabs and hard-working Fellahs, with their brown felt caps ; splendid Armenians ; overgrown Negroes, whose skin, black and glossy as the raven's wing, contrasts with their white robes, as their scarlet fez does with their woolly head ; women, stately from long habit of carrying their graceful double-handled water-jug poised on the head ; ladies waddling along, veiled by their great black silk cloaks, so that they look like walking sacks ; snarling dogs, and splendid dignified donkeys with scarlet leather saddles ; and donkey-boys, shouting a chorus of African and European small-talk, marvellously jumbled into one strange *patois*. There is no conceivable tint that human skin can assume that is not here represented—from the clearest creamy roses, fresh from Britain, to the yellows and browns and jet black of all other nations. And as to eyes—their variety is a study in itself. Such orbs ! Eyes of every shade, from light hazel to black—eyes gentle ; eyes sad ; eyes laughing ; eyes wild ; wicked eyes ; loving eyes ; dreamy eyes. One fair British damsel, after gazing for some time in open-mouthed admiration at a group of magnificent Moors, confided to me that in her wildest moments she had never dreamt of such eyes, but that *now* she could sympathise with Desdemona !

All day long, if you choose, you can sit and watch this ever-varying kaleidoscope, with every shade and variety of eastern and western life—white men in dark clothes, dark men in bright clothes ; Jews (of whom multitudes have found their way back to the old house of bondage), Turks, Greeks, infidels, and heretics ; Copts, Nubians (in full dress of fresh oil), Albanians (in rich and striking attire), Americans, Europeans of all nations, Englishmen of every type, from the representative of the stately old school, down to the ven:st riff-raff of *Cockneyism*, who think it necessary at once to

adopt the orthodox scarlet fez, the *wearisome* fez, which you here worn indiscriminately by representatives of all nations. All the combine to make a balcony in an Alexandrian street as striking post of observation as you can possibly find in any land.

Concerning the fleshpots of Egypt, I cannot say that either German and Italian hotel-keepers, or their *chefs*, have done much to improve the viands. Day after day we rang the changes on dishes, some boiled or roast, but always the same hard, black, uncertain material which Thackeray long ago declared could only be the food of ancient donkeys. So we were driven to such an unwarrantable consumption of dates and plantains, that we have hardly been able to face them ever since.

At the table d'hôte the streams of outward-and-homeward-bound meet for the first time. And a sadly diverse set they are—the former with their store of English health and spirits, with life all before them; the latter having had their tussle with climate and crowded offices, and all life's realities; Eastern potentates, perhaps rulers and judges of provinces as big as Great Britain, now returning contentedly to the position of average Englishmen (because England is home), when, like dear old Colonel Newcome, they may chance to find that the welcome home, of which they have dreamed through long, weary years, may be that invitation to dine a fortnight hence.

You can tell by a glance at a man's hat to which set he belongs. For young England's first investment on landing is a puggaree, white or with coloured stripe, which he wears round his hat during the voyage, after which it is never seen again, being a plaything which is quickly replaced by the genuine article, a thick, white linen helmet for the military, or a huge hat of white pith for other mortals: a sort of great mushroom to which the human body acts as a stalk. The effect of a very large fungus of this species on a stranger man is always suggestive of *Punch's* vulgar little boy, "Oh! it's only use pretending you're not there, 'cos I see your legs dangling!"

The "gamin" is much the same in most countries, and some of these young Arabs understand "a sell" as well as any well-educated young Briton—as well, for instance, as the sharp lad who gave such clear evidence in a Glasgow police-court, that the benevolent judge determined to try and rescue him from evil company. A question as to his home was, however, sufficient to rouse the suspicions of the street Arab, who felt he must at any price put his lordship off by scent by an indirect answer. "Ye ken the Gallowgate? D'ye ken the Fule's Close? D'ye ken the pump at the end o' it? Well, ye ken the *jist gang* and pump yon, for ye'll no pump me!"

A gentleman of our party was terribly worried by the eternal prayer for backsheesh. At last he halted, and, holding out his hand to one of the little dark-eyed suppliants, mimicked his petition. In a moment the little chap unfastened his girdle, produced a dirty little leather bag containing two or three minute coins, one of which he gravely bestowed on our friend! I need scarcely say that no almsgiving ever brought in more rapid returns.

Of course we very quickly found our way to the bazaars, "to mingle with the strange and turbaned crowd," those marvellous throngs of picturesque life; new forms, animate and inanimate; new sounds, new human beings, new animals, mingled beauty and dirt, of which no description can convey the slightest idea—nothing but actual sight. The fruit market, full of things as yet unknown and untasted—the market for such game as is brought from Lake Mareotis, and treasures of every description brought here from every corner of the eastern world by those long strings of patient, heavily-laden camels; crockery, saddlery, gold and silver embroidery, the scarlet fez, the yellow slippers (with turn-up toes, for the exclusive use of the faithful), firearms, glittering swords and daggers, gorgeous raiment of needlework, from the coarsest stuff to the rarest brocades, of material and colour alike rich and harmonious; jewelled pipes, spices, carved wood and ivory, sweetmeats, rich stuffs woven by patient hands, playthings—many stalls together dealing in the same article. For just as in London you expect to find bankers in Lombard Street, silkweavers in Spitalfields, coachbuilders in Long Acre, watchmakers in Clerkenwell, and so forth, so in the East each trade has its own bazaar—the silkweavers, the coppersmiths, the saddlers, letter-writers, the dealers in Moorish, Turkish, Persian, or Algerian stuffs, each cluster together in their own quarter.

But the chief charm of these bazaars lies in the throng of human beings of all sorts and kinds; the almost bewildering medley of voices talking "every man his own tongue wherein he was born"; the perpetual motion, the intensity of colours, the vivid sunlight, the cool, deep shadows.

It is curious to stand beside the dealer in firearms and watch the simple process of manufacture. The workman, sitting on his counter, holds a long wire between his toes, and, slowly winding it round the tin barrel, produces a lethal weapon which would astonish Purdie or Lancaster. It is a fowling-piece which a British sportsman would regard with awe if required to fire it; nevertheless, it proves fatal to a vast number of snipe and quails, and rarely leads to any accident.

Those yellow slippers, too, are worthy of notice. The orthodox

bright yellow dye with which the leather is stained is obtained from the rinds of pomegranates. Every blue-robed woman whom you meet probably carries on her head a great flat basket of fruits and vegetables, her little marketing for the day ; or else on her shoulder sits a quaint eastern baby, and a group of bigger children clustered round her—little creatures whose large, calm eyes would be so beautiful were it not for flies and filth ; but, alas ! as some one suggested, "What is beauty without soap ?" (and, indeed, soap seems a thing unknown in Egypt, or at least wonderfully precious, judging from the prices charged for washing !) As to these poor dark-eyed little ones, their mothers keep them filthy on purpose, lest any one passing should admire them, and so excite the envy of evil spirits.

Moreover, they believe it strengthens the sight to paint the eyelids of even the youngest baby with khol, a mixture of soot and antimony, which is carefully applied with a silver bodkin. This certainly makes the eye look immensely large, but painfully unnatural. Then, the amount of ophthalmia is something frightful. It is due chiefly to the intense dryness of the atmosphere and the subtle, impalpable dust which for ever floats in the air above the crowded city. Exceeding dirt also does its part ; while the swarms of flies which cluster on the sores, and there revel undisturbed, are a sight to fill you with disgust. Of course they carry infection to the next eye on which they settle, and so the loathsome disease spreads, and that with such frightful rapidity that sometimes the whole eye is reduced to a mere opaque pulp within twenty-four hours, even when the sufferer is otherwise in perfect health. The consequent amount of blindness is startling ; and I believe the computation is that one man in six has lost the sight of either one or both eyes.

Even where actual blindness does not exist, the powers of vision are singularly defective, and when it became necessary for the railway in selecting its servants, to test their sight, it was found that a very small minority of the candidates could distinguish a red signal from a green one at a distance of a hundred yards. I believe this is partly the reason that so large a proportion of the company's servants are Europeans.

It is said that in the time of Mahomet Ali many children were artificially made blind of one eye to exempt them from the conscription ; indeed, grown-up men voluntarily blinded themselves to avoid the hated service, forgetting that the wilful destruction of one eye might always involve the loss of both. A gentleman who was travelling in Egypt at that time told me that of his eight boatmen two had lost one eye, a third was nearly blind of both, four ha

ly knocked out three upper teeth on the right side, to avoid cartridges, while the eighth had chopped off the trigger finger of the right hand. He adds, that in a whole day he had failed to find one peasant working in the fields who was what he termed a *man*, that is, one who had not subjected himself to some such cruel mutilation to escape conscription. Mahomet Ali, however, considered the expedient of raising a one-eyed regiment, so as to utilise as far as possible of these refractory subjects.

The ravages of ophthalmia tell cruelly on the beauty of the women. Too often the dark blue veil, which just reveals a sunny brown eye, conceals a hideous chasm in the place where an eye should be.

How little Moore can have suspected so prosaic a cause when he writes of the

The mask that shades
The features of young Arab maids,
A mask that leaves but one eye free
To do its best in witchery.

The said mask, or rather veil, is the inevitable *yashmak*—a white veiling the whole head and figure, and fastened across the nose with a brass ornament, so as just to leave an opening for the eyes (as the case may be). With the poor, this veil is invariably of cheap blue, dyed with indigo; but richer folk wear black silk, and the rich attendants white linen, and when the wind blows back this veil it reveals indoor raiment of vivid colours, beautifully coloured.

On an unaccustomed eye, a ramble through the city offers a succession of pictures, and we peered and peeped down the narrow courts and alleys, noting where here and there a quaintly carved stone, the broken shaft of a column, or richly wrought old iron built roughly into the wall, told of the ruins of the grand city; till a courteous stranger warned us that we were approaching the poultry market, where the very dust was literally hopping

, tearing the prize limb from limb, scrambled and fought
half-raw meat till not one fragment remained for those to
had been promised.

g the first traces of the olden days which we searched out
Catacombs, which lie about two miles from the city on the
ne Libyan Desert, and which run underground in every
from near Pompey's Pillar, and all along the ridge of low
re the busy windmills at first caught our attention. They
ely little known, even to the natives, and travellers are by
sure of finding the right entrance. Even the coachmen
principal hotels are more than likely to waste your after-
riving you about over sands and ruins and execrable masses
grated rock, mis-called roads; and after all may be com-
acknowledge that they do not know where to go next. In-
e ancient entrance is unknown. One great chamber, how-
been forced open and made into a stable for Egyptian
From this, other chambers open; one of these is about
t in diameter, and all round the walls are niches for bodies,
skulls and mouldering bones still lie. All along the sea
caves or chambers scooped out, which probably led into
the longer passages.

of these especially attracted our interest, having something
of a chapel; and remembering how the early Christians
ven to take refuge in these catacombs, we felt that the
as hallowed—that Apollos, the fellow-worker of St. Paul
irthplace was in this city), or perhaps St. Mark himself, had
istered to their persecuted brethren.

a gruesome thought chased away these hallowed memories
collected the horrible trade which modern Egyptians have
ied on with their ancestral dust.

may remember how disgusted we all were when, among
supplies of bones brought to certain mills from Russian
houses, it was reported that human bones collected from
battle-fields were freely mixed with those of cattle, and
ground up together to enrich British soil.

more hideous was the recent digging up of that vast human
hich lay at the back of our National Gallery; those horrible
rein all the dead of London, victims of the Great Plague,
t wholesale; thence, after only two centuries (and while many
ones yet retained some semblance of human form), to be dug
pread over Kensington Gardens as a pleasant fertilising agent
a roses and lilies. Thus speedily do all things find their uses.

Doubtless the fields around Paris will for many a year be all the greener by reason of the blood of her murdered sons poured out like water upon every side. Within three short weeks of those dreadful decrees was issued that all those ghastly cemeteries, where hundreds of corpses had been piled in "gruesome" heaps, should be covered with fresh soil and sown with quick-growing grasses, mustard, and all such weeds: such crops as might yield both forage and fuel. It may be that pious children, toddling knee-deep mid those rich grasses, may deem it no rare thing to find a whitening skull upturned in the gull's path, may even carry it home as some choice plaything.

It is a strange indeed to find a nation such as Egypt once so great and most civilised of all people—now so literally "the basest of the basest" (as Ezekiel foretold she would become) "the basest of the basest"—that not content with converting the bones of her dead into the fuel of thousands of her descendants, to be sold for a few pence a ton for their degenerate descendants and their degenerate descendants, she must needs actually make merchandise of her dead. These precious mummies, which in the days of her glory were accounted worthy of such exceeding honour that they were buried in the very best security on which to lend money (inasmuch as the mummy who had been driven to pawn his deceased father or mother's mummy would sooner die than fail to redeem his pledge), now in the hands of the dealers are valued at so much per ton, and sold as a valuable manure for foreign soil.

As you come towards Memphis you might very recently have seen a long train of camels, heavily laden with human mummies, passing the town. Here too, from these old Alexandrian harbours come merchant vessels in the harbour, barges laden with human mummies, and their cargo is carried on board in the most secure manner, and the vessels deliver their cargoes to the buyers at all rates per ton, to be mixed with other manures and sold at a considerable profit. Several eyes were directed to the ancient sepulchres while the work was going on, and saw pieces of human bone, small and large, scattered among the dishonoured dust. It was said that many of the mummies were to be carried over the seas to be sold as manure, and that many of the Alexandrian catacombs were to be explored, and their contents must elapse before the coming rain should wash them away.

The bones of the dead, the bones of old Egyptians are not to be left to rot in the earth, but have been dealt ruthlessly. Some of the bones of the dead have been found hidden about sev-

to the plain to the east of Alexandria, a spot rarely visited, to his amazement he found ruins of buildings, pillars, and trees carved in the rock, which he could only compare to those of Petra. While he stood there some workmen were employed in dragging forth a sarcophagus carved with intricate figures, a treasure for any museum. Its destination, however, was to be sent to a lime kiln, as being the easiest way to obtain lime for building some modern mosque!

Leaving the Catacombs, we next turned to Pompey's Pillar, which received in its old age a Roman dedication. It was originally the central pillar of the Serapium—the gorgeous temple of Serapis—second only in its magnificence to the Capitol of Rome. The mighty column stood alone in the centre of a great roofless court, surrounded with pillars and porticoes, all of which it overtopped, so that it could be seen by the sailors when far out at sea. Four hundred of the surrounding pillars were still standing in the days of Saladin (so say the famous Arabian writers), but these were eventually cast into the sea, and now there remains only this mighty column, which the Greeks still call the Pillar of the Colonnades: it stands alone, almost the only specimen of Greek art that could, in size and strength, vie with the old Egyptian work.

As we stood amid the desolate mounds of sand and ruin, we drew a picture to ourselves of the once magnificent temple, glittering with gold, and the gorgeous ceremonial of Egyptian worship. It was built of marble, the inner walls being faced with gold. Moreover, it was filled with statues plated with gold, and with votive offerings of gold. When the Christians gained the ascendancy in the fourth century the Emperors for many years spared this and other rich temples to their heathen subjects, but at length there came a bishop of Alexandria, so avaricious that he determined to appropriate all this wealth. So he laid siege to the building and pillaged the temple, taking the gold and precious stones in the cellars of his palace, till he had therewith decorated some costly church with offerings that

faith chiefly by such acts of violence as the wholesale plundering of the wealthy Jews, or the barbarous murder of that beautiful heathen maiden Hypatia, who by her subtle teaching of philosophy, no less than by her loveliness, held captive the men of Alexandria, and strove to uphold the falling credit of the gods whom she herself worshipped. Such were the scenes of riot and bloodshed which disgraced the Christian cause in these later days.

But from an earlier century there rose to our memory a far different vision—of the days when the name of the Nazarene was a byword of contempt, and when the great ones of the earth thronged these courts to do homage to them that were no gods.

At a Christian altar in the city St. Mark was ministering, when an infuriated body of heathen burst into the church, and, dragging him forth, hurried him along to this Great Temple, offering him pardon and safety if he would burn but one little handful of incense to the gods. Steadfast in his faith, he faced that raging sea of idolaters, and calmly met the terrible fate before him. Finding they could nowise shake the loyalty of that solitary, brave Christian, they dragged him to the Bucelus, a precipice by the sea, where stood the State prison. There they left him for the night, and his peaceful slumbers were gladdened by a glorious vision of the appearance of One who told him that his name was written in the Book of Life. When morning broke his tormentors returned, and dragged him to and fro about the city until he died. Then loving hands rescued that honoured clay, and, burning the body, sent the ashes to be treasured up at Venice.

There are other saintly names intimately associated with this city. St. Anthony, we know, came forth from his cell in Upper Egypt, and travelled to Alexandria to cheer and encourage his brethren in the mines and caves; accompanying the martyrs to their dungeons, and standing fearlessly by them, even in their last dread hour, clad in his white monastic robe, as one nowise shrinking from the crown of martyrdom. This, however, was not in store for him; so when the persecution abated, he returned to his cell, which he had made on a mountain difficult of access, hoping thereby to get beyond reach of the multitudinous visitors, who broke in upon his peaceful solitude. Nevertheless, he tilled a garden in the desert that he might have refreshment to offer to such as persisted in following him.

In later years he returned to Alexandria, to confound the teaching of the Arians. Even the pagans flocked to hear a man so holy and learned, and withal so meek and humble. They found him

and courteous ; and he altogether won their hearts by his
is and simple charity to all men. They marvelled how one
could choose to live alone in the desert, apart from men and
but he taught them that he never was alone, and that, as for
Nature was the great volume which to him supplied the place
thers. So he abode awhile in the city, comforting the sad,
thing all, and then returned to the desert to dwell, sometimes
cell, sometimes in his monastery, whence he wrote letters of
counsel to the Emperor Constantine and his sons, and where
he died unmolested.

Other of the names best known to us, in the great host of
Alexandria's saints and martyrs, is that of St. Catherine. Here it
is the cruel wheel for once refused its office, and flew in pieces
as the intended victim was bound to it, striking several of
her persecutors with such force that they died. Finally she was
killed, but ere she died she prayed that her body might not be
in the hands of pagans, and in answer to her prayer the angels
appeared, snatching it away from these furious heathen, they carried
it about Sinai and there buried it, on the spot where the convent
now stands to St. Catherine now stands.

Great was the multitude of pilgrims who flocked to this holy
place, that a special order of knighthood was instituted for their
protection from the marauding Arabs. These were the Knights of
the Hermitage of Mount Sinai. They wore a white habit, whereon
was brodered a half-wheel armed with spikes, and traversed by
a line stained with blood, the instruments of her martyrdom.

It was too that St. Jerome came to study under the learned
Ambrose, who, although blind from his infancy (by reason of
smallpox, such as is but too common among the Alexandrian
of the present day), nevertheless, with the assistance of hired
readers and copiers, made himself master of every conceivable
branch of science, geometry, astronomy, and philosophy, so that he
was deemed a prodigy, and, being also a man of exceeding holiness,
was appointed by St. Athanasius to the charge of the great school
of Alexandria.

To facilitate his study of the Holy Scriptures, he got the letters
of the alphabet cut in wood, and learned to distinguish them by the
touch.

So it seems that raised books for the blind are no modern
invention, any more than boxes of alphabets, inasmuch as we find
these saintly fathers counselling a young matron on the
education of her family, and recommending that they should in early
years be accustomed to *play with such boxes of letters carved in wood*

The Successors: Maximian

... of the same name similar to the one which St. Athanasius, who... office as Primate of... heresy. Again... and forced to find refuge... the last years of... he was suffered to end... The vic associate... rarely... the incre... and the daily hardships...

... of Cappadocia who... Athanasius... whom Gibbon has... through by his...

... to... into a... afterwards he became a zealous... to the Arch... by the appalling cruelty... their goods, tearing and burning some poor wretches to death, pillaging... even polluting and... and such... while... Such as... stripped of their... so that none could recognise them, ... Thus this loving shepherd of the Alexandrian flock pretended to seek the peace of the Church, and to teach lessons of charity and love.

Not content, however, with persecuting the Arians, he recruited his coffers by plundering the heathen temples, and taxing Christians and Pagan alike, till his oppression became unendurable and the people expelled him from the city. Once more reinstated by Constantine, he held his ground till the accession of Julian, when his day of retribution came. Dragged to prison by his foes, in company with two of his adherents, he there lay twenty-four days, after which the people would wait no longer for their revenge, but, bursting open the prison doors, they murdered the Archbishop and his companions, carried their bodies triumphantly through the city, and threw them into the sea.

such a death, at the hands of the heathen, was speedily
martyrdom, and canonisation soon followed. Some
who still doubted the sanctity of "the ex-contractor of
" but the Arians stuck by their saint, and in after ages
as Gibbon have confused his name with that of the real
also born in Cappadocia, who, sixty years previously, had
for the faith, being the first martyr in the persecution
tian.

military Tribune, though only twenty years of age ; when,
nt at a Council assembled by the Emperor to consult
crush the Christians, he spoke up for them like a man,
yed his own faith. Then all looked in amazement on
auty of that young face. Nevertheless he was subjected
ortures, in all of which he was miraculously preserved,
ons and wonders followed, that many were converted to
cluding Athanasius the sorcerer, who had prepared
inks for him.

he was beheaded, but failed not to reappear from time
the encouragement of warriors ; and when, during the
e saint actually appeared to Cœur de Lion, and fought
de Bouillon, his fame became undying, and romance
chose him as their patron.

licts with spiritual enemies were very soon materialised
rs with the Libian Dragon of which England has heard so
fable was of rapid growth, inasmuch as the Emperor Con-
a painting of St. George and the Dragon on the porch of
Constantinople, before St. George of Alexandria had ever
f. He had also built a church near the sea and called
e, this being the first church dedicated to St. George.

Poinpey's Pillar, we next found ourselves in one of those
y shrubberies, which all over the East are called gardens,
e, and nothing but shade, is their chief characteristic.
band was playing execrably, and we endured half an
h, after which the musicians happily departed, as it was
Mahomedan Sabbath—and the faithful were required
I believe the Turks, like the Hindoos, pique themselves
vledge and love of music, and say it is the one thing
English are thoroughly ignorant !

next lay along the Mahmoudiah Canal, which connects
with the Rosetta branch of the Nile at Atfeh. It was
hand of Mehemet Ali, in the year 1819, the destruction
e, eighteen years previously, having ruined Alexandrian

trade, by isolating the city from the grand old river. After of Sir Ralph Abercrombie, when the British were trying to drive the French troops from Alexandria, they cut great sluices through the banks of the canal near Damietta, intending thereby to cut off the garrison from communication with the rest of Egypt, as well as the supply of fresh water. In the rush which ensued, the waters of the Lake Aboukir were drained down to the ancient bed of the Mareotis, producing a vast inundation to the east and south of the city—a new feature in the country, which the French soon turned to their own advantage, bringing a flotilla of gunboats to work in the newly created sea.

So the Pasha very wisely determined to make a new canal. He showed neither wisdom nor mercy in the way he set to work. Vast multitudes of those poor hard-worked and much-suffering Fellahs, about whom we have lately heard so much, were gathered together—250,000 men, women, and children, half naked, and made to work in the burning sun, under command of brutal taskmasters who, as in the days of Pharaoh, did not hesitate freely to scourge of cords, to encourage the weary.

Not the men only, but women and little children, were made to work. They literally streamed with blood. No regular tools were given; each brought his own poor basket of palm-leaves to carry the sand and mud, which they scooped up with their hands. Only a few loaves were given, and only the most miserable food; so it is no wonder that, by the very lowest computation, 23,000 of the wretchedest of wretches perished from starvation, disease, and exhausted bodies, being shovelled in with the sand and mud, helped to form the canal banks, making them at the same time into a ghastly cemetery. But the fifty miles of canal were completed in a year (some accounts say in six weeks!); and human life is of small importance when balanced against a great man's will.

From first to last these Egyptian canals have weighed heavily on the labourers; for what with artificial lakes and rivers, and with locomotion or of irrigation, each successive generation have devised for itself some new experiment in waterworks.

In the very first reign of which we have trustworthy records—namely, that of Menes, who lived about 500 years before Abraham—we find him undertaking, and successfully accomplishing, a trifling little alteration in the position of the Nile. He found that its natural course somewhat interfered with his plan of building a beautiful new city of Memphis; so, without more ado, he turned the mighty river aside, and compelled it to flow in a new

he eastward. This he accomplished by constructing a dyke, with mounds and embankments so strong, that the amazed stream found itself effectually bridled, and calmly flowed in its new channel.

The next great work of the sort was that vast artificial lake constructed in the reign of Mæris, for purposes of irrigation—a lake 300 feet in depth, and measuring 450 miles in circumference—which, being fed by the mother Nile through countless artificial channels, became a huge store-house, wherein were treasured the waters of the annual overflow. These, being imprisoned by mighty locks and floodgates, were therein retained till the earth had drunk up the last drop of the Nile's great gift. Then, when the thirsty land once more gasped and craved for refreshment, these precious waters flowed forth by a network of veins, and gave new life to the parched soil. It is supposed that to this great reservoir was partly due old Egypt's safety in those dread years of famine, when she alone had corn enough and to spare, both for herself and for the starving nations around.

We also hear of various attempts to connect the Red Sea with the Mediterranean—ancient versions of the great Suez Canal. The first who seems to have thought of this—or, at all events, to have attempted it—was Sesostris. His work was taken up by Pharaoh-Nero, who wasted 100,000 lives of his miserable people before he would give in, and who was at length forbidden by an oracle to continue the work, as it would open Egypt to the invasion of strangers.

It was doubtless to this great canal that Ezekiel, his contemporary, alludes in describing Pharaoh as the great dragon that lieth in the midst of his river, "which hath said, My river is mine own, and I have made it for myself." And it was as the penalty of his pride in his own works that the sentence of the Most High went forth against him: "Behold, I am against thee, and against thy rivers, and I will make the land of Egypt utterly waste" (or, as the margin gives it, "wastes of waste") "and desolate, from Migdol to Syene, even unto the border of Ethiopia." It shall be "a base kingdom, the lowest of the kingdoms; neither shall it exalt itself any more above the nations."¹

Again, in comparing Pharaoh's overweening greatness to that of a mighty cedar, overtopping the forest, like unto a shadowing shroud, Ezekiel says: "The waters made him great, the deep set him up on high: with her rivers running about his plants, and sent out her little conduits unto all the trees of the field. Therefore his height was exalted

¹ Ezekiel xxix. 3, 10, 15.

... because of the multitude of the waters, when he
 forth." "Thus was he fair in his greatness, in the
 branches: for his root was by great waters. But because
 lifted up in his height, therefore it was appointed that
 tree should fall; and the great waters were stayed; and
 of the field, 'even all that drink water' fainted and
 because of the failing of the streams." This was the fat
 for "Pharaoh and all his multitude." These words, of
 to his fresh-water canals and vast systems of irrigation;
 following chapter another reference seems intended
 connecting link between the seas, when Pharaoh is ad
 dragon in the seas, which camest forth with thy rivers, at
 the waters with thy feet, and fouledst their rivers." 1

This vast work, which Pharaoh-Neco failed to co
 carried on by Darius, who actually did connect the two
 doubt there was as gay a gala day on that occasion as an
 witnessed in January 1870. This great canal was p
 Ptolemy II.; nevertheless, for some reason unknown, it se
 fallen into disrepair and disuse, and though still distinct
 in many places, it continued for many long ages to be
 only a monument of folly and presumption; and a
 antiquaries.

Now, part of that old canal is the very bed throug
 new fresh water canal flows to Suez from Ismailia, b
 brought thither from Cairo, by M. de Lesseps, as a pre
 beginning his mighty work; and in spite of unnumbered
 from every side and every source, he accomplished (with
 ing the people) that which all the wisdom of the Pharaoh
 work out, and has given to the nations a new and wonder
 broad highway for the shipping and the traffic of all
 earth; a river ninety miles in length, averaging rather
 hundred feet in width, and twenty-six in depth. We
 better fate is reserved for these great waters than attende
 of the proud Pharaohs; and that the blessing of heaven m
 Egypt's new river—a blessing which not priests and p
 but also the crowned heads of many nations, both C
 Mahommedan, united so solemnly to implore, when, e

with those of his predecessors. It is impossible to stand on
banks of the Mahmoudiah Canal, and look on its glassy waters,
with a shuddering memory of the twenty-three thousand men,
women, and little children (some say far more) who only sixty years
ago perished in making it, welcoming the death that freed them from
slavery, and laying down their poor exhausted bodies, to find rest at
last on those great mudbanks at which, in hunger and burning heat,
they had toiled so wearily.

C. F. GORDON CUMMING.

MRS. ELIZABETH BARRY

IN that very scandalous chronicle "The Grammont" mention is made of a certain "Miss Sarah," who seems to have been the niece of the governess presiding over the Duchesse's maids of honour, and who, falling into disgrace at Court, on account of her levity of conduct, her sins of eavesdropping, tale-bearing, mischief-making, was presently admitted to the King's Company comedians, and brought upon the stage under the patronage and auspices of the profligate John Wilmot, Earl of Rochester. Therefore the public was said to be "obliged for the prettiest at the same time the worst actress in the kingdom." And "Miss Sarah," it has often been stated, was in truth no less a person than Mrs. Barry who enjoyed such extraordinary histrionic reputation during the reigns of Charles and James the Second, of William the Third and Anne. But the account is open to considerable question. Mrs. Barry's Christian name was certainly Elizabeth and not Sarah; she could not probably at any time have been fairly described as the prettiest or the worst of actresses; she was a member of the Duke's and not of the King's Company; and at the date of Hamilton's compiling "The Grammont Memoirs" the date of her career must have been well known: her fame was established, she was one of the chief ornaments of the theatre.

Without doubt, however, my Lord Rochester interested himself concerning more than one of the actresses of his period. The prettiness of "Miss Sarah" was perhaps her only claim to notice and regard; she came, was admired, and disappeared; her art has left no mark in dramatic annals, and her name is known only by name. But with Mrs. Barry the case was different. Rochester introduced her to the theatre and to have previously given her valuable instruction in the art of acting. The "Madame B——," contained in the edition of his poem published in 1716, are supposed to represent the Earl's correspondence with the actress. Mrs. Barry, however, was born in 1658 and her first appearance on the stage when she was only about fifteen. Her success was but gradually obtained; her fame as an actress

ned before 1680, the year of Lord Rochester's death. According most accepted account, she was of good family, the daughter of Robert Barry, barrister-at-law, afterwards known as Colonel Barry, a man of ancient descent and good estate, who suffered from his loyalty to Charles I., for he had raised a regiment and expended his fortune in the service of the king. In his "Supplement to Cibber's Apology," Tony Aston states that Mrs. Barry was a woman to Lady Shelton of Norfolk," and it is possible that in the early days of the impoverished barrister's daughter may have occupied such position in her ladyship's household. Lady Davenant, as Davies describes as an acquaintance of Sir William Davenant's, surely she must have been the widow of the poet-laureate who died in 1668—is said, out of her great friendship to Robert Barry, to have given his daughter Elizabeth "a genteel education," affording her an early knowledge of polite life, which brought "ease and grace to her person and behaviour," was subsequently "of much service to her upon the stage.

It seems certain that Mrs. Barry's early efforts upon the scene were of little promise. Upon three occasions, according to Curl's "History of the Stage," her incompetence as an actress led to her removal from the King's Company of players, and she was only retained upon the direct intervention of her patron Rochester.

It is probably more correct when he states that she was dismissed but once, at the end of the first year of her engagement, "because others that were thought to be a useless expense" to the management. It was objected to her that her ear at this time was deaf, or that she was troubled with some "unskilful dissonance in her manner of pronouncing." Lord Rochester is said to have wagered that within the space of six months she should become one of the most celebrated performers of the theatre. He charged himself with her dramatic education; he taught her not only "the proper cadence or measure of the voice," but to enter into the meaning of every sense she expressed, to "seize the passions" and adapt her whole behaviour to the situations of the character. Moreover, he caused her to rehearse her part some thirty times upon the stage, and of about twelve times in the dress she was to wear on the night of her performance. Especially he instructed her, as Curl relates, in the character of Isabella, the Queen of Hungary, the heroine of Dryden's rhyming tragedy of "Mustapha," and induced King Charles and the Duke and Duchess of York to witness the performance.

The dignified air of the young actress, her look of distress, and her pathetic *elocution* greatly moved the audience in her favour, and

as the play advanced, "the several conflicting passions were ingly touched by her that the theatre resounded with loud ap The Duchess of York, Mary of Modena, was so pleased bestowed her wedding dress upon Mrs. Barry, and from her " soon afterwards to improve in the English language." It is added, however, that this story of Mrs. Barry's triumph in " pha" is of a confused and suspicious character. "Mustapha" originally presented at the Lincoln's Inn Fields Theatre in 1666 the Queen of Hungary was personated by Mrs. Mary Davis— favourite—the "Moll Davis" of Pepys's Diary, and there is of any performance of the tragedy at a later date: the revival play was indeed an unusual occurrence in those days.

The Duke of York's second duchess did not arrive in England until November 21, 1673, so that this performance of "Mustapha" if it occurred at all, must have occurred after that date, and before the death of Rochester in 1780. It is more certain that Mrs. Barry's earliest appearances upon the stage was in 1675 at the Dorset Garden Theatre, when she undertook the small part of Draxilla, the confidant, in Otway's tragedy of "Alcibiades." She was seldom employed in the theatre at this time. In 1676 she was playing Theodosia in "Tom Essence, or The Modish Comedy," a comedy attributed to Rawlins, and in part derived from Molière. She appeared also as Constantia in D'Urfey's "Madam Fickle, or the Witty False One." In the following year she personated Phoebe, the confidant, in the tragedy of "Titus and Berenice," borrowed from Racine, by Otway, who also adapted from Molière, and performed on the same night, "The Cheats of Scapin," in which play Mr. Barry represented Lucia. She made herself useful, apparently, in both tragedy and comedy, as her manager might decide; but the parts she sustained were of minor significance; she was one of those so-called "walking ladies" of the drama who are useful, and indeed ornamental usually, but who are not expected to stir the audience deeply, or entrusted with any vital occupation upon the scene. Characters allotted to her in the comedy of "The French Conjuror," in the play of "The Constant Nymph," and in Mrs. Behn's tragedy of "The Moor's Revenge, or The Moor's Revenger." It is to be observed that she is often described as Mrs. Barrer in the play-bills and play-books of the time; a general licence and recklessness in the matter of names then prevailed—indeed, the printers took especial liberty in the names of the players, who perhaps had no very distinct opinions of their own upon the subject, their names not being inherited always, but capriciously selected and assumed. In 1678 Mrs. Barry was

Polyxena, in Banks's tragedy "The Destruction of Troy"; Sophia in D'Urfey's "Squire Oldsapp, or The Night Adventurers"; Mrs. Goodvile in Otway's "Friendship in Fashion"; and appearing in some other obsolete plays. In 1680 Otway's famous tragedy "The Orphan" was first performed, Mrs. Barry representing the heroine Monimia, to the Castalio of Betterton, the part of the page being undertaken by a little girl scarcely six years of age who "played to the admiration of all spectators," and who afterwards became known to fame as the great actress Mrs. Bracegirdle; "all the parts being admirably done, especially the part of Monimia," writes Downes, in his *Roscius Anglicanus*, 1708. Mrs. Barry's success was now thoroughly recognised, she was firmly established as a public favourite.

Mrs. Barry seems to have been peculiarly the interpreter of Otway. In the preface to his "Alcibiades" he had complimented her upon her performance of Draxilla, and it has been shown that she appeared in other of his plays. Her success as Monimia was surpassed by her triumph as Belvidera in his "Venice Preserved." She was also the Lady Duncie of his "Soldier's Fortune"; the Porcia of his "Atheist"; and the Lavinia of the tragedy of "Caius Marius" he founded upon "Romeo and Juliet." According to Downes, her performance of Monimia, Belvidera, and of Isabella in Southerne's "Fatal Marriage," first produced in 1694, won for her "the name of the Famous Mrs. Barry both at court and city, for, whenever she acted any of those three great parts, she forced tears from the eyes of her auditory, especially those who have any sense of pity for the distressed. These three plays," he further records "by their excellent performance, took above all the modern plays that succeeded."

It was in 1692 that Mrs. Barry appeared as Cassandra on the production of Dryden's tragedy of "Cleomenes." In his preface to the work Dryden writes concerning the manner of its representation: "I can scarcely refrain from giving every one of the actors their particular commendations; but none of them will be offended if I say what the town has generally granted, that Mrs. Barry, always excellent, has in this tragedy excelled herself, and gained a reputation beyond any woman whom I have ever seen on the theatre." Cibber, however, ventures to think that Dryden's natural partiality for a character of his own creation "tempted his judgment to let it pass for the masterpiece of the actress, when he could not but know that there were several other characters in which her action might have given her a fairer pretence to the praise he has bestowed on her for Cassandra; for in no part of that is there

the least ground for compassion, as in Monimia, nor equal admiration as in the nobler love of Cleopatra, or the temperate jealousy of Roxana. It was in these lights," he concludes, "that Mrs. Barry shone with a much brighter excellence than Cassandra." He had already recorded with admiration "the presence of elevated dignity in characters of Greatness," her "and gracefully majestic mien and motion; the fulness, and force of her voice, "so that no violence of passion could be much for her;" her ability to subside "into the most affecting and softness" when distress or tenderness possessed her. "The art of exciting pity she had a power, as he judged, beyond what actresses he had ever seen. She shone alike in the heroic parts of Dryden and Lee, and in the works devoted to "the softer parts of Otway. In scenes of anger, defiance, or resentment, she was impetuous and terrible, she yet "poured out the sentiments in an enchanting harmony." He perfectly remembered her performance of Cassandra—he might easily remember it, for he was not more than nineteen when "Cleomenes" was first produced—he recognised her excellence in the character, noting that, "she was then "not a little past her youth," she had but just attained at the maturity of her power and judgment, "from which he adds, "I would observe that the short life of beauty is not enough to form a complete actress; in men the delicacy of features is not so absolutely necessary, nor the decline of it so soon the notice of." Cibber does not venture upon a description of Mrs. Barry's personal appearance, but this deficiency is supplied by Tony Aston. Complaining that Cibber had omitted all "of the several personages' beauties or faults," Aston produces a series of rudely drawn and rather uncompromising portraits. Of Mrs. Barry he writes: "She was not handsome, her mouth was most on the right side, which she strove to draw t'other side, at times composing her face, as if sitting to have her picture taken. She was middle-sized, and had darkish hair, light eyes, dark eyes, and was indifferent plump. She had a manner of drawling out her words, which became her, but not Mrs. Bradshaw and Mrs. her successors. Her face ever expressed the passions—it preceded her action, as her action did her words. In tragedy she was solemn and august, in free comedy alert, easy, and pleasant in her face and action, filling the stage with her gesture. She could neither sing nor dance, no, not in the least." Davies, writing in 1784, mentions that some few years before, at Mrs. Bracegirdle's house in Howard Street, Strand

seen a picture of Mrs. Barry by Kneller, in the same apartment with the portraits of Betterton, Congreve, and of Mrs. Bracegirdle herself. Mrs. Barry, he reported, did not appear from the picture to have been a great beauty, "but her countenance commanded attention and was extremely expressive."

Mrs. Barry was said to be more fortunate than any actress that has succeeded her. It so chanced that in the course of her thirty-seven years' stay upon the stage she was allotted prominent parts in an unusual number of new and successful plays. She originated no fewer than one hundred and twelve characters, and, as Genest observes, giving a list of her impersonations, "What an advantage a new part is to a performer, provided it is a good one, everybody knows who knows anything of the theatre." Mrs. Barry had fought her way to the head of her profession, and the parts she played were held to be very good ones. After remaining some nine years at the Dorset Garden Theatre, the union of the dramatic companies in 1682 brought her to the Theatre Royal in Drury Lane. In 1695 she was at the Theatre in Little Lincoln's Inn Fields, as it was then called, and she there continued till Vanbrugh opened his new theatre in the Haymarket in 1705. She moved apparently as Betterton moved, her playfellow—the hero to her heroine, during so many years—and she was not seen upon the stage after his death in 1710. She played Evadne to his Melantius on the occasion of his last benefit on the 13th of April, 1710, and the bills of the following day announced that she would represent the Queen in the "Spanish Friar"—"the last time of her acting this season." She did not appear again. He died on the 28th of April. She felt that it was time to bring her own dramatic career to a close. She took no formal leave of the public, but withdrew from London quietly to the pleasant village of Acton, to pass her few remaining years there in privacy and peace.

Betterton had always been her faithful friend, he had appeared with her in innumerable plays, he ever spoke kindly of her, applauding her genius. After reprehending certain of the youthful players of his time, who were careless and idle, and with but a month or two of experience persuaded themselves that they were masters of their art, "though their education and former business were never so foreign to acting," and who "took it amiss to have the author give them any instruction," he remarked that it had always been his own and Mrs. Barry's practice "to consult e'en the most indifferent poet in any part we have thought fit to accept of. And I may say it of her," he continues, "that she has often so exerted herself in an indifferent part that her acting has given success to such plays as to read would

turn a man's stomach; and though I could never pretend to do much service that way as she has done, yet I have never been wanting in my endeavours." Upon another occasion he said, "Among those players who seem to be always in earnest I must omit the principal, the incomparable Mrs. Barry; her action is always just, and produced naturally by the sentiment of the part which she acts, and she everywhere observes those rules prescribed to the players by Horace, and which equally reach the actors. . . . She, indeed, always enters into her part and is the person she represents. I have heard her say that she never exclaimed 'Ah! poor Castalio' in 'The Orphan,' without weeping. And I have frequently observed her change countenance several times as the discourse of others on the stage has affected her in the part she acted. This is to be thoroughly concerned; this is to know her part; this is to express the passions of the countenance and gesture." Aston also records her special power of surrendering herself to the influences of the character she represented—that in stage dialogue she often turned pale or flushed red as varying passions prompted.

In Shakespeare Mrs. Barry appeared but seldom, Shakespeare being somewhat out of fashion with the playgoers of her period. She was Cordelia, however, to Betterton's *Lear*, in Nahum Tate's mutilated edition of the tragedy; she was Mrs. Page, in 1704, to Betterton's *Falstaff*, and the Mrs. Ford of Mrs. Bracegirdle; in 1707 she was Queen Katherine to Betterton's *Henry*, the Wolsey of Verbruggen and the Buckingham of Booth; and in the following year she was Lady Macbeth to Betterton's *Macbeth*. These appear to have been her only Shakespearian characters. Among the more prominent parts she undertook, being their first representative, may be cited the Almeyda of Dryden's "Don Sebastian," the Alcmena of "Amphitryon," the Victoria of his "Love Triumphant," the Marquise of his "Duke of Guise." She was the original Zara of Congreve's "Mourning Bride," the Lætitia of his "Old Bachelor," Lady Touchwood of his "Double Dealer," the Mrs. Marwood of "Way of the World"; she was the Clarissa of Vanbrugh's "Confederacy," the Lady Brute of his "Provoked Wife." She was Artemisia of Rowe's "Ambitious Stepmother," the Aspasia of "Tamerlane," the Calista of his "Fair Penitent," the Rodoque of his "Royal Convert," the Penelope of his "Ulysses." She was the Lady Wronglove of Cibber's "Lady's Last Stake," the Zaira of his "Xerxes"; she was Queen Margaret in Lee's "Massacre of Paris," Anne Bullen in Banks's "Virtue Betrayed," Lady Grey in his "Innocent Usurper"—which at the last moment

Forbidden representation, however, and Queen Eleanor in Bancroft's "Henry the Second." She was very favourably received as Queen Elizabeth in Banks's "Unhappy Favourite," playing the part in the coronation robes of James the Second's consort, who had bestowed the finery upon the actress, greatly moved by admiration of her powers. Mrs. Barry is said to have afforded her audience "a strong idea" of Henry the Eighth's daughter. And she was held to be very great indeed as Roxana in Lee's "Rival Queens, or the Death of Alexander the Great." It was in this part that, carried away as she declared by the illusion and excitement of the scene, at the words "Die, sorceress, die, and all my wrongs die with thee!" she nearly plunged her dagger into the bosom of Mrs. Boutell, her sister-actress, who played Statira, and was indeed the original representative of that character. Fortunately the lady was protected by the steel and whalebone of her stays, and the dagger's progress was arrested. There was a scratch, and some screaming ensued, but no serious mischief was done. Indeed, the matter soon was very jocularly treated. It was said that the ladies had quarrelled privately about a veil pertaining to the wardrobe of the theatre, which each had resolved to wear in the tragedy; that the wardrobe-keeper had recognised the claims of Mrs. Boutell as superior, because of her longer connection with the stage, and that therefore the anger of Mrs. Barry being roused beyond measure, she had plied a sharp-pointed dagger with the full intent of wounding her rival. But the story is hardly to be credited. It need hardly be said that accidents by reason of "playing with edged tools" have been of frequent occurrence upon the stage.

Many of the plays in which Mrs. Barry appeared are now forgotten, and deservedly forgotten. They were swept from the stage long since. They have been tossed by the tide of time to the topmost shelves of the library; if they find readers in these days, it is only readers of antiquarian and retrospective tastes. The fame of the actress pertains to a repertory that is for the most part obsolete. What does the modern theatre know of Dryden, Lee, and Shadwell, of Otway, Rowe, and Southerne, of Congreve, Vanbrugh, and the rest? What would the audience of to-day think of the writings of Etherege, Brome and Crowne, of Mrs. Aphra Behn, and Tom D'Urfey? The depravity of the drama of the Restoration has been often insisted upon: it was not wholly bad, but assuredly it was very bad. Betterton might well speak of certain plays as "enough to turn a man's stomach." Poetry had not expired; indeed, it gave evidence here and there of fine and vigorous vitality; but it flourished

under conditions of squalor, in circumstances of offence, lie upon a dunghheap. The tragedies in which Mrs. Barry figured often but fustian; the comedies were usually foul and filthy expression. It was a period of execrable bad taste, and it reflected the age; the comic dramatists of the Restoration creatures of their epoch. Libertinism was thoroughly the immorality was "the only wear." Still, it has to be said that the corruption and viciousness of the nation were the direct result of the Puritanism of the Commonwealth. The counter-revolution, of reaction, had arrived. Society had been laced too tightly, suddenly, all the strings had snapped. Men were now dissenting in principle, by way of protest and demonstration. As Macaulay says: "Profligacy was like the oak-leaf of the twenty-ninth of March, a badge of a cavalier and a high churchman. Decency was a thing of the past with conventicles and calves' heads." He adds: "In London the outbreak of debauchery was appalling; and in London the most deeply affected were the Palace, the quarters inhabited by the aristocracy, and the Inns of Court. It was on the support of these parts of the town that the playhouses depended. The character of the drama became conformed to the character of its patrons. The comic poet was the mouthpiece of the most deeply corrupted and dissipated of a corrupt society." In the plays of the Restoration the dramatist discovered "distilled and condensed the essential spirit of the fashionable world during the anti-puritan reaction." The vice thus set could with difficulty be departed from. For in the drama continued to be deplorably dissolute, well merited castigations administered by Jeremy Collier, in his "Short Discourse of the Immorality and Profaneness of the English Stage," published 1698. "Religion grows uncreditable," he wrote, "and is a bad ill education. The stage seldom gives quarter to anything serviceable or significant, but persecutes worth and goodness every appearance. He that would be safe from their snares must take care to disguise himself in vice and hang out the colours of debauchery. How often is learning, industry, and frugality in comedy! . . . In short, libertinism and profaneness, idleness, and gallantry are the only valuable qualities. As men were not apt enough of themselves to be lazy, lewd, and extravagant unless they were pricked forward and provoked by good reputation! Thus the marks of honour and infamy are mixed together and the ideas of virtue and vice confounded. Thus modesty goes for proportion, and the blemishes of human nature are the beauties of it," &c.

While the dramatists took "these extraordinary liberties with their
as Cibber says, it was not surprising that the ladies who visited
theatre were "decently afraid of venturing bare-faced to hear a
comedy" until they were assured they could do so without the
of an insult to their modesty, or, if their curiosity happened to
be too strong for their patience, took care at least to save appearances
by wearing masks upon the occasion—masks being then, we are
told, "daily worn and admitted in the pit, the side boxes, and
gallery." It is clear, however, that the mask was as often assumed
for want of shamelessness as by decorum, and was apt to be generally viewed
as an advertisement of immodesty. Dryden writes in one of his
pieces :

But stay ; methinks some vizard mask I see
Cast out her lure from the mid gallery :
About her all the flattering sparks are ranged, &c.

Again :

But as when vizard mask appears in pit,
Straight every man who thinks himself a wit
Perks up, and managing his comb with grace,
With his white wig sets off his nut-brown face ;
That done, bears up to the prize and views each limb,
To know her by her rigging and her trim, &c.

gentlemen of the time wielded combs, just as now certain play-
ers brandish toothpicks. The beaux had taken to shaving their
beards and wearing "white valancy wigs." Dryden says of some
of the play, that it is "as bald as one of you young beaux without
their periwigs." The audience was apt to be rude and ill-behaved
enough, from the lounging "mutton-eating" king in his box, toying
with his mistress or bantering with his courtiers, to his "roaring boys,
who came in drunk and filled the house with noise," "the little
actors of the pit," the "hot Burgundians"—gentlemen flushed with
drinking burgundy—who

on the side

Ply vizard mask and o'er the benches stride ;

the

sort of prattlers in the pit

Who either have or who pretend to wit :

These noisy sirs so loud their parts rehearse,

That oft the play is silenced by the farce.

There was a "fop's corner," too, famed for its noise and civil war,
where the white wigs and vizard masks were wont to jar and wrangle.

etter than herself. There were born to her two daughters, who
ceased her. Of the one Lord Rochester was the reputed
r, leaving her by his will an annuity of £40; of the other, Sir
ge Etherege. It was understood that Mrs. Barry retired from
stage with a sufficient provision for her remaining years of life.
salary was very small—the salaries awarded to the players of her
were very small indeed—but she had prospered by her benefits
by the gifts of her innumerable admirers. According to Cibber,
Barry was “the first person whose merit was distinguished by the
gence of an annual benefit, which was granted to her alone,” he
eds, “if I mistake not, first in King James the Second’s time,
which became not common to others until the division of the
pany after the death of King William’s Queen Mary.” At the
of Betterton’s effects, by way perhaps of securing something he
prized and as an interesting relic of him, she became the pur-
er of what is now known as the “Chandos portrait” of Shakespeare.
picture is said to have belonged originally to John Taylor, the
y, by whom, or by the famous Richard Burbadge, it was painted.
or bequeathed the work to Davenant, at whose death it was
ot by Betterton. From Mrs. Barry—it is sad to think that she
ld have sold it—the portrait passed for the sum of forty guineas
Mr. Keck, whose daughter carried it with her, as part of her dowry,
her marriage with Mr. Nicholls of Minchenden House,
ogate. A daughter born to Mr. and Mrs. Nicholls, and their
child, gave herself, her hand, and her fortune, including the
rait of Shakespeare, to James, Marquis of Carnarvon, afterwards
e of Chandos; and a daughter born of that marriage, Lady Anne
ges, bore it to Stowe upon her union with the Marquis of
ingham, afterwards known as the Duke of Buckingham and
idos.

According to Cibber, Mrs. Barry died of a fever towards the close
ween Anne’s reign. “The year I have forgotten,” he writes, and
adds, familiarly addressing his readers, “but perhaps you will
ollect it by an expression that fell from her in blank verse in her
hours when she was delirious: ‘Ha! ha! and so they make us
by dozens!’” This does not fix the year very exactly, however.
as in December, 1711, that Queen Anne, by her unusual exercise
er prerogative, created twelve new peers in order that her Tory
nters might carry their measures through the Upper House. In
last illness the mind of the dying actress might have unaccount-
wandered to this public event, and she may have expressed
elf concerning it with a professional air in a line of blank verse.

She survived Queen Anne's creation of the twelve peers years, however. Tom Davies states, upon the authority of a who was in London when Mrs. Barry died, that her death owing "to the bite of a favourite lapdog who unknown to been seized with madness." She was buried in Acton church her epitaph describing her as "of the parish of St. Mary le Sa recording her demise on the "7th November, 1713, in the of her age." No one actress seemed capable of filling the had left vacant in retiring from the stage. The character personated were divided in almost equal proportions among Porter, Mrs. Rogers, Mrs. Knight, and Mrs. Bradshaw.

DUTTON

THE WELSH IN THE WEST COUNTRY.

NO question in British ethnography can compare in importance with the question how far the Keltic aborigines were exterminated by the English conquerors in the sixth and seventh centuries, and how far they were absorbed and amalgamated in a servile or semi-servile condition. But the problem in its entirety is too vast to be treated in full within a reasonable compass ; and it may perhaps best be attacked piecemeal, by taking a single early English kingdom as an example, and judging of the rest by the analogies which it affords. For this purpose Wessex forms by far the most convenient locality ; both because we have here the greatest amount of documentary evidence, and because the subsidiary facts are more certain than in any other part of England. If it can be shown with any degree of probability that the population of the West Saxon shires, from Hants and Berks to the Land's End, is still largely Keltic in blood, it will follow that the total amount of the Keltic infusion in Britain must be very much larger than most of our historians will willingly admit.

To begin with, it may be well to premise that I shall not attempt to dispute the great facts as to the thoroughly Teutonic constitution of south-eastern Britain during the early middle ages, which Mr. Freeman, Canon Stubbs, and other writers of the "English" school of historians have so abundantly proved for us. I have no desire to emulate those Keltic enthusiasts who wish to make us believe that the English language is half Welsh or half Gaelic ; and I am perfectly ready to admit that the tongue, the laws, the institutions, and the religion of Teutonic Britain at the close of the sixth century were purely and entirely English, with scarcely any perceptible Keltic admixture. The only point which I am concerned to prove is the strictly ethnographical one, that a large number of the British aborigines survived the English conquest, and passed into the condition of English slaves, or even of English rent-paying churls. That they became as thoroughly English in speech and feeling as their masters cannot possibly be denied ; but that they and their descendants were and are of true Keltic blood seems to me equally

certain. Granted that in our language and our institutions modern Englishmen are purely Teutonic, it is still a great ethnical interest how far we are the mixed offspring of an earlier aboriginal race. For the solution of this problem the relations between Wessex and the West Welsh offer us the very best existing materials.

When the Romans withdrew from Britain in the early fifth century, they left the country in the hands of its inhabitants, whom they called by the common and pure name of Britons. These Britons, however, were no more homogeneous in race and blood than the various tribes of Ireland at present day, whom we English somewhat similarly lump under the general and rather contemptuous title of natives. The main stocks of Britons certainly lived in the southern part of the island at the date of the Roman invasion. One of these was the Aryan race of the Kelts, almost beyond question a light-eyed, and light-skinned people, with the characteristic skulls which usually prevail in the Aryan family. The other was the Euskarian race of the Silures, almost beyond question a dark-haired, dark-eyed, and dark-skinned people, with the characteristic long skulls which usually prevail in the Euskarian family. The Silures lived as an unmixed nationality in South West Britain; their own native princes, we know with certainty. But the Aryan Kelts lived in any part of the island, as a pure and homogeneous people, is far less certain. On the whole, it is probable that a body of conquering Keltic warriors had come to Britain long before the dawn of history, at the beginning of the bronze age; and that, being armed with bronze weapons, they came the stone-weaponed Euskarians everywhere except in the Silurian country; but that they were numerically very few, and that they lived on thenceforward as a military Keltic aristocracy in the midst of a servile population of Euskarian or half-Euskarian natives. The long-headed Kelt-Euskarian *plebs*, ruled by the round-headed Aryan Keltic chiefs and soldiers, form in all the mass of the historical Britons, at and after the Roman invasion. Speaking the Keltic language, and notwithstanding themselves as much Kelts as their masters, they are, as far as blood went, almost pure dolichocephalic Euskarians. All our ethnologists are now agreed that large numbers of these early aboriginal inhabitants of Britain survive in every part of modern England. First Keltic and then Teutonised, they have long since mixed with the remain-

population ; but they still retain in many places all the anatomical traits which make them recognisable at once to the eye of the ethnologist. If it were true that the English utterly exterminated the people whom they found upon the soil, then in the east of England at least our people ought to be a pure flaxen-haired, blue-eyed race like the Swedes and Norwegians ; whereas in fact they exhibit every possible gradation between this somewhat unusual purely Teutonic type and the dark-hair, brown skin, and dolichocephalic skull of the thorough-going Euskarian class. And while the Euskarian element is undoubtedly strongest in Wales, Cornwall, the Scotch Highlands, and Ireland, it cannot be denied that it also forms a very large item in the population of the eastern coast, and all those parts of England which are usually considered to be most distinctively Teutonic.

These ethnographical facts I have given but very briefly, by way of preface, because they may be easily found at greater length in the works of Professor Huxley, Professor Boyd Dawkins, the late Dr. Rolleston, Dr. Beddoe, and others of equal authority. They form the positive and certain element in this question, the "fixed points" to which the documentary evidence must necessarily be accommodated. For while the history may be false or may be misinterpreted, the anatomical facts cannot lie, and they are patent to anybody who will take the trouble to examine them. It is a fact that the English conquerors were a mesocephalic, fair-haired, light-eyed race ; and it is also a fact that, as Dr. Rolleston puts it, both a dolichocephalic and a brachycephalic race lived in England before, during, and after the English conquest. To these certain facts our interpretation of the historical evidence must be accommodated. Let us see how far, in the restricted field of Wessex, the recorded annals are in concert with the indubitable anatomical truths, and how far they seem to contradict them.

The first English settlement in Wessex probably took place, as the legendary story informs us, about the close of the fifth century. The earliest entries in the "English Chronicle" (of which I shall have more to say hereafter) tell us that the Jutes landed in Kent in 449 ; that the South Saxons landed in Sussex in 477 ; and that the West Saxons landed in Hampshire in 495. Doubtless the "Chronicle" is right in supposing that Kent and Sussex were settled before Wessex ; and doubtless, also, it is wrong in supposing that East Anglia and Northumbria were not settled till a later date. The English pirates, coming from Sleswick with a fair north-east wind ast of them, would naturally land first along the east coast of Britain, and would only

round the South Foreland into the Channel after the more level shores of the eastern slope had been fully occupied by their countrymen. Indeed, the "Chronicle" really says which is inconsistent with this view; it is only its interpreters have read into it the received belief that Northumbria was colonised till 547, in which year "Ida came to the kingdom." In any rate, whatever value we set upon the earlier entries in the "Chronicle," it is likely enough that the first regular settlement was made in Southampton Water about the end of the fifth century.

On the other hand, Wessex was not converted to Christianity till 634. Thus, for nearly a century and a half after their settlement in Britain, the West Saxons were heathens. Of this heathen and far more of the actual settlement, we have practically no worthy records. Bæda, our earliest contemporary English historian, could not have begun to write, at the earliest, till the year 634; for the rest we are referred to the meagre entries in the "Chronicle," compiled at the court of Alfred, but based, in part, upon earlier materials of more or less traditional character.

Our one certain authority, Bæda, tells us absolutely nothing of the settlement of Wessex. We only learn from him that there were two English principalities in heathen times around the Southampton Water; one that of the Gewissas or West Saxons proper, the other that of the Meonwaras, who he tells us were the

The "English Chronicle," on the other hand, gives us a first a comparatively consistent though very dubiously historical account. According to this collection of old West Saxon annals, in 497 came twain ealdormen to Britain, Cerdic and Cynric his son, with three ships, at that stead which is hight Cerdices ora; and on the next day they fought against the Welsh." In 501, "came Port to Britain with his twain sons, Bieda and Mægla, with two ships, at that stead which is hight Portsmouth; and forthwith landed, and there slew a British man, a right noble one." In 508, "Cerdic and Cynric, a British king, whose name was Natanleod, and five thousand men with him; after that the land was cleped Natanleag (Netley) as Cerdices ford (Charford)." But in 514 we get another very confusing entry, "In this year came the West Saxons to Britain with three ships, at the stow which is couth Cerdices ora; and Wihtgar fought against the Welsh, and put them to flight." The inconsistency of these entries I shall have something more to say hereafter; for the present it is best to continue the history in the form under which the "Chronicle" gives it. In 519, "Cynric took upon them the kingship of the West Saxons; and

they fought against the Welsh, where man now clepeth
ford; and sithence the kingly stock of the West Saxons was
from that day." In 527, again, "Cerdic and Cynric fought
the Welsh, at the stow which is cleped Cerdice's leah." In
Cerdic and Cynric took Wight Island, and slew a few men at
asburh (Carisbrooke)." In 534, "Cerdic, the first king of the
sons, died, and Cynric his son came to the kingship, and ruled
twenty-six winters; and they gave all Wight Island to their
ephews, Stuf and Wihtgar." In 544, "Wihtgar died, and they
him at Wihtgarasburh (Carisbrooke)." With this entry what
called the narrative of the first conquest ends.

the historians of the "English" school (whose thorough and
historical work needs no petty meed of acknowledgment from
we taken this narrative as on the whole a trustworthy one;
late Dr. Guest, at least, has worked it up minutely into a
stantial account, with dates and particulars in full, after a very
d original manner. Nevertheless, it is impossible to avoid
several extremely suspicious circumstances about the story.
First place, all the names and events are curiously linked on to
times in the true mythical fashion; and this is a feature which
is not in all myths, while it never occurs in the later and un-
doubtedly historic portion of the "Chronicle." Whenever an annalist
is short of the evidence of names to bolster up his authority, one may
be sure that the names are the whole evidence upon which he
rests. But, furthermore, in these cases, as Mr. Freeman himself
has shown, two of the names are in their very nature exceedingly sus-

Port, we are told, lands at Portsmouth; but the name of
South is really derived from the Roman Portus Magnus, or
Portus, in whose neighbourhood it stood. Then, again, Wihtgar
died at Wihtgarasburh; but Wihtgarasburh is really the town or
of the Wihtgaras, or men of Wight, just as Cantwaraburh, or
Canterbury, is the town of the men of Kent. Natanleod is appar-
ently transferred from the name of Natanleag, or Netley, which was then
applied to the whole district about Southampton Water.
Cerdic, I venture even to believe that this great founder of the
Saxon and English royal lines, this supposed ancestor of Queen
Elizabeth herself, is no better than a philological error. The reasons
for my belief I must set forth at a little greater length.

It is granted on all hands that the earliest West Saxon kingdom
was not only Hampshire, with perhaps the adjoining parts of Wilts
and Dorset. Now, Dr. Guest has pointed out that there exists around
the probable boundaries of this West Saxon settlement a very

remarkable earthwork, of comparatively late construction, known as the Grimsdyke. He has shown that this dyke intersects the Belgic British earthworks, and must therefore be of subsequent erection, and that it has its fosse turned towards the West Saxon territory, which proves that it must have been erected by the still unconquered Britons of Old Sarum, Amesbury, and the principality of Ambrosus generally, as a bulwark against the further advance of the English invaders. He has also noted a number of local names along the line of the dyke, or the presumed boundary, which seem to show that at that point the two nationalities met: such are Sherfield English, Inglewood, Ingleford, Inglesham, two Englefields, and Englemoor on the one side, with Britford, Wallingford (*i.e.* Welshman's ford), Wealabrigg (*i.e.* Welshman's bridge), Weala Geat (*i.e.* Welshman's road), and Weales Huth, on the other. In short, Dr. Guest has made it pretty certain that about the year 520 the English principality of the West Saxons extended from the Chichester tidal flats to Poole Harbour, and from the Channel to the valley of the Thames about Eynsham, Oxford, and Wallingford. On its outer edge, this intrusive wedge of heathen Saxondom was girt round by a barrier wall of earth, erected by the Christianised and Romanised Britons, to prevent the further inland advance of their barbarian enemies.

Now, the Welsh would doubtless call this defensive earthwork something like the *Caer*; and as the English would call any earthwork a *dic*, dyke or ditch, nothing could be more natural than that they should speak of this particular Welsh barrier as the *Caerdic*, or *Cerdic*; that is to say the *Caer dyke*, the initial letter being always hard in early English. It so happens that all the places compounded with this name of *Cerdic*, so far as they are recognisable at all, lie near the line of Grimsdyke, and on the supposed boundary of the old West Saxon kingdom. The position of *Cerdices ora* is uncertain; but *Cerdices ford*, or *Charford*, stands on the Avon, below Salisbury, where the Grimsdyke must have crossed the river; and *Cerdices leah*, now *Bernwood Forest*, lies beyond the Thames towards Aylesbury and *Lenbury*, which we know long stood out as independent British fortresses. It seems to me probable, therefore, that the facts from which the original chronicler made up his annals were something like these. He had heard that the earliest West Saxon settlement in Britain was that of the *Cerdices rice*, the kingdom of the *Caerdic*, that is to say the territory within Grimsdyke. He supposed this *Cerdic* to be an English ealdorman, just as he had done with *Port* and with *Wihgt*; and he made him at once into the first king of the West Saxons. He had also heard two or three slightly different accounts of the arriv

of the West Saxons in Britain, and these accounts he put in as separate landings, making an artificial chronology to reconcile their discrepancies. According to one account, the invaders were said to have come in five ships; according to another, in three; either number being, of course, ridiculously inadequate. The salient point in the traditional story being that the West Saxons had first occupied the country within the Grimsdyke, this fact is expressed in one story by saying that they conquered as far as Cerdice's ford, in another by saying that they advanced to Cerdice's leag. All these variants seem like vague memories of the restricted Saxon landing; that of the Jutes in the Isle of Wight and around Southampton Water is expressed in the tales of Port and of Stuf and Wihgtar. Such inferences as to names and dates are universal with all our early chroniclers. It is a curious fact that another legend represents Cerdic as having landed in Norfolk, and the Norfolk Carr-dyke still bears witness to the origin of the tale.

The kernel of truth contained in the traditional account, then, would seem to be as follows: Some time about the close of the fifth century a body of Jutes landed in the Isle of Wight, and the exposed coasts about Southampton Water. Places of this insular or peninsular character were always the favourite bases for the operations of the northern pirates. These Jutes settled in the country known as Natanleag, or Netley, stretching from Charford to the sea, and from Poole Harbour to the Chichester marsh region—which thus formed a convenient mark or boundary for the little colony. The new settlers were known as the Meonware. A little later another body of English, this time belonging to the Saxon tribe, landed in the same district, and pushed their way up the valley of the Itchen to Venta Belgarum, the capital of the Belgæ, which they knew by the slightly altered name of Wintanceaster, or Winchester. These second adventurers conquered, perhaps slowly, the inner country as far as the Thames valley; but they were for a while hemmed in by the Grimsdyke, which defended the important British fortresses of Badbury, Sorbiodunum (Old Sarum), Amesbury, Sidbury, Barbury, Lenbury, Aylesbury, Grimsbury, and Calleva Atrebatum (Silchester). The Saxon colonists were at first known as Gewissas, but afterwards as West Saxons.

Even in this earliest nucleus of the West Saxon kingdom, however, we have no sufficient reason to believe that the Welsh (or Kelt-Euskarian aborigines) were absolutely exterminated. That idea has been wholly read into the "Chronicle" by its modern interpreters. The annalist says that in Wight only a few men were slain;¹ and that five

¹ A various reading has "many" instead of "few."

ard villages are mostly called by English titles, often derived from clan-patronymics ; but this is quite what one might expect under the circumstances, seeing that under the Romans the population was reduced into a few cities, and the country was mostly given up to *latifundia*, tilled by slave labour. The English families who settled in the prædial lowlands, or felled the forest for their homesteads, naturally called the new villages which they founded after their own names.

But the old towns, the old divisions of the country, and the old features generally, continued to be known by the names which the English conquerors learnt from their Keltic and Kelt-Euskarian sources.

Nothing, indeed, can be more fallacious than inferences drawn from isolated facts. It does not follow, because *Caer Eborac* and a dozen other Roman fortresses were razed to the ground, that every living soul within their walls was put to death. It does not follow, because *Ælle* and *Cissa* are said, on the dubious authority of the "Chronicle," to have slain every Welshman in *Anderida*, that they also slew every Welshman in all *Sussex*. It does not follow, because *Æthelfrith* put to death the monks of *Bangor Iscoed* who rebelled against him, that the Northumbrians universally slaughtered the combatant Britons. Doubtless the first heathen onslaught was savage and murderous ; doubtless many Welshmen were cruelly murdered in cold blood ; but for all that, many women and children, and even some men, of British descent must have lived on as slaves in the earliest colonies. The very mention of cases like *Anderida* and *Chester* shows that they were exceptions to the general rule.

There is no proof that most of the towns were ever destroyed ; and the presumption seems to be rather that London, York, *Exeter*, *Winchester*, and all the larger cities, had an unbroken continuity from Roman and British into English times. Canon *Stubbs* himself admits that some of the towns were spared, and adds that if this was so a portion at least of the town population would naturally be spared too. That such was the case at *Winchester*, and at *Portchester* and at *Carisbrooke* as well, seems at any rate probable, if not actually probable.

The number of villages bearing the characteristic Teutonic clan-names may be taken as one of the best tests of the density of the English colonisation in various parts of Britain. Tried by this test, *Hampshire* itself, though far more Teutonic than later *West* *Sussex*, does not show such thick concentrations as the east coast or as *Kent* and *Sussex*. We get memories of the *Ælingas* at *Avington* ; of the *Bosingas* at *Bossington* ; of the *Ingas* at *Brading* (*Isle of Wight*) ; of the *Bullingas* at *Bullington* ;

of the Elings at Ellingham; and so forth. But altogether, there are in the whole nine but 33 of these early English clan-settlements, as against 71 in Lincolnshire, 127 in Yorkshire, and 153 in East Angles. Taking these as equal, we get proportionately as 27 in Here as 50 in Kent, as 60 in Sussex, and as 60 in Norfolk. This it would seem that the original Teutonic colonisation of Hampshire itself the very nucleus of Wessex, was far less dense than that of the more easterly kingdoms. But it was far denser, on the other hand, than that of the later West Saxon settlements or conquests to the north and west. Domes gives us absolutely 22, or, comparatively to absolute area, of such clan-villages; Worcestershire has only 13, and Cornwall only 2. Just in the same way, though Northumberland and Yorkshire have respectively 48 and 127, their westward extensions, Cumberland, Westmorland, and Lancashire, have respectively 6, 2, and 26. Purely Celtic Monmouth has, of course, none at all. It may be added that at each such *hwa* or *hwa* an English family seems to have settled on its own lands, tilled no doubt in part by Celtic or semi-Celtic serfs; while the towns were probably left by the agricultural English entirely to their urban Romanised Welsh inhabitants.

It is worthy of notice, too, that from the first the relations of the English with the unconquered Welsh appear to have been those of two regular and to some extent diplomatically related states. There was an acknowledged boundary, with duly demarcated limits. There were English fords and Welsh fords; there were English roads and Welsh roads; doubtless, too, there were interpreters and rude ambassadors and something like international relations. Dr. Guest goes so far as to speak of treaties and agreements. Even during the heathen period, we know from *Bæda* that there were marriages between Northumbrian kings and native Pictish princesses, between Kentish kings and Christian Frankish princesses. *Nennius* (*valeat quantum*) tells us of Welsh ladies married to English princes. Penda of Wessex allied himself with Cadwallon of Gwynedd. Exiled English *Æthelings* took refuge at the petty courts of Welsh or Pictish chieftains. Probably, at every period, the Welsh and English princes recognised one another's royalty to some extent, and in times of peace held negotiations with each other on equal terms.

After the first conquest of the narrower Wessex, there seems to have been a lull of half a century in the English advance. *Gildas* who was a Welsh monk and who lived during this lull, tells us that it was caused by a great defeat of the English in their attempt to besiege a certain Mount Badon, which Dr. Guest has pretty conclusively identified with Badbury close to the Dorsetshire boundary

of this defeat is generally put in the year 520; at that time conclude, therefore, that the West Saxons had not yet got at all into Dorsetshire, and were still entirely confined to a kingdom within the Grimsdyke.

But, however, we get an entry in the "Chronicle" which seems more likely to be historical than the earlier statements, and which marks the beginning of the second advance. In that year, we are told that Cynric fought against the Britons in that stowe that is cleped Beranbyrig (Old Sarum), and put to flight the Bret-Welsh." This is a place quite outside the pale of the Grimsdyke, and it laid the upper part of the Avon open to the English invaders. I see no special reason to doubt that Cynric may have been an historical personage. A little later we read, "Cynric and Ceawlin fought against the Britons at Beranbyrig (Barbury)"; and in 571, again, "Cuthwulf fought against the Welsh at Bedcanforda (Bedford), and took four towns, Aylesbury, Bensington, and Eynsham." These events to the north have so little reference to the relations between the West Saxons and the West Welsh that I leave them out of consideration, and turn to events which more nearly concern our present subject.

The year 577 marks the great turning-point in the history of the Saxon conquest. In that year, "Cuthwine and Ceawlin fought against the Welsh, and they offslaw three kings, Conmail, and Eboric, and Farinmail, at that stowe which is couth Deorham, and there were the chesters, Gloucester, and Cirencester, and Bath." This victory broke up the Welsh nationality in South Britain into two parts, one of which retreated gradually into Wales, the other into the West.

The first body was known to our early English ancestors as the North Wealas or North Welsh, the second as the West Wealas or West Welsh. It is with the relations of this latter people, the West Welsh, of Somerset, Devon, and Cornwall, with the West Saxons, that we have here to deal. By the victory at Deorham (conjecturally, but probably correctly, identified with Dyrham, near Bath) the West Saxons were enabled to reach the valley of the Severn, and to shut the West Welsh between the Bristol and the English Channel. Constantine, king of the Damnonians, is mentioned by Gildas in his "De Exiliis" and his retirement to a monastery in the year 589 is one of the earliest entries in the *Annales Cambrie* for this period; he therefore has been king of the West Welsh at the date of the battle of Deorham.

That Constantine's kingdom still stretched close up to the Severn, and along the valleys of the Frome and Avon farther west as far as Bradford and Malmesbury, is fairly certain on which Dr. Guest has fully set forth.

Even before the battle of Deorham brought Guthwine face to face with the Bristol Channel at Axmouth, Wilts and Dorset must already have been Anglicised. When and how the conquest took place we have no further information, though Wilts was probably overcome after the fall of Sarum, and Dorset shortly after, but in both these cases we see already a great difference from the original West Saxon colony in Hampshire and Berks. The people of the two shires are called the *Wilsatas* and the *Dorsatas*, that is to say, the settlers by the *Wily* and among the *Durostriges*. The termination seems significant. Here, probably, the English colonists were less numerous than in Hants, and the number of aborigines who survived was apparently greater. In Wilts, the dark long-headed type is fairly frequent; in Dorset, it enormously preponderates. The test of the clan-settlements gives something the same result. In Wilts there are altogether but 25 village names of the Teutonic clan-type; in Dorset, there are but 21, and these mostly in the eastern half of the county, near the Hampshire border. Compared with the 33 in Hants, the 127 in Yorkshire, and the 153 in East Anglia, these figures tell their own story. Salisbury, Dorchester, and Amesbury keep their Roman or British names; and a few Keltic words still mingle in the dialect of the two shires, though not so abundantly as in Devon or Somerset. Nevertheless, this question of language is one to which but little importance can ever be attached, for we know that Keltic words are by no means common even in Cornwall or in the English of Inverness, both of which have been so recently Anglicised. The fact seems to be that the English language everywhere drives out the Keltic tongues, receiving but few words from their vocabulary, and those of comparatively but slight importance. It is noteworthy, however, that such Keltic words as do survive in modern English have reference mostly to the work of women and slaves, and to such superior agricultural methods as the rude English conquerors would naturally learn from their Romanised and semi-civilised slaves. Such as it is, the linguistic evidence in Wilts and Dorset, as elsewhere, goes to prove the survival of the aborigines in considerable numbers, though, of course, in a servile condition.

For nearly a century after the conquest of Bath had cut off the Damnonian Welsh from their northern brethren, the West Saxons seem to have made no further advances westward. They were occupied in fighting the still independent Britons of the Midlands on their northern frontier. In 584, we read in the "Chronicle" that Ceawlin and Cutha fought the Welsh at an unknown place named Fethanleag; in 592, Ceawlin was unsuccessful in a battle against them at

ugh, near Swindon ; and in 614, Cynegils and Cwichelm a British army at Bampton on the Upper Thames, with a two thousand men. In 628, the West Saxons met the at Cirencester, and had no longer any British enemies to of them. All this time, however, we hear nothing of wars e West Welsh. For the greater part of a century the les of the Damnonian kingdom remained fixed and settled ; dish and Briton must have met on friendly terms along the rder from Lyme Regis in Dorset to Malmesbury, and from ury round again to the mouth of the Somersetshire Axe.

re the next advance of the West Saxons, an event had taken hich considerably modified the subsequent course of English t over the Welsh. In 639, Bishop Birinus, the Gaulish ry, baptised king Cuthred of the West Saxons at his royal Dorchester on Thames, and all his people shortly afterwards Christians. Thenceforth, the Welsh wars undoubtedly grew

Even before the conversion, the West Saxons had almost y spared large numbers of the conquered Welsh ; but after od, the conquests became those of mere political supremacy. eeman, indeed, says of Ceawlin's victory at Deorham, which he northern part of Somersetshire, "This was the last conquest, the last exterminating conquest, waged by the axons against the Britons." But it can hardly be allowed se earlier wars were those of extermination ; for the districts pper Severn Valley, at that time overrun by Ceawlin, though rds conquered by the Mercians, still remain largely Welsh ographic elements at least. Southern Somerset and Devon one whit more Keltic in blood than Gloucestershire and tershire on this side Severn. Indeed, we learn from Florence's ix and from William of Malmesbury that the Welsh joined sons of the Severn Valley in a revolt against Ceawlin, just llwallon afterwards joined Penda of Mercia against the mbrians. These occasional hints suffice to show that even hen times the gulf between Welshman and Englishman was wide as it is often represented to have been. Still, the ion doubtless made a great difference in the character of the a difference which has left its mark on the whole history of r conquests. The Christian Englishman now left the Christian an in possession of his lands and goods, and was content with exacting a tribute, and imposing marks of inferiority upon the red race.

anwhile, the Damnonian kings, ruling from Malmesbury to

Christianity there was only one bishop for all Wessex. But when the kingdom was split up into two dioceses, one east, where the people were all purely English, with a sub-Anglicised Wealas or slaves; the other, west of Selwood, where the people were mostly Welsh or of Welsh descent, and where the people must still have been speaking the Cornu-British language. Aldhelm, abbot of Malmesbury—a monastery founded in the West Saxon territory by an Irish missionary—and a relation of Ine, was appointed first bishop of the new diocese. He set himself to work distinctly as a pacificator. The British Christians in the conquered regions were all heretics of the Welsh Church, with peculiar views as to the date of Easter and the proper mode of the ecclesiastical tonsure. Aldhelm, even before his appointment, wrote a book against these heresies, and, says Bæda, "many of those Britons, who were in subjection to the English, turned to the Catholic celebration of Easter, by the perusal of his book." Aldhelm's letter to Geraint (the first Damnonian king, Constantine whose name we know with certainty) still exists, and its superscription shows the diplomatic nature of the relations then existing between the two principalities: "To the most Excellent Lord of the Western Kingdom, whom I love with affection, to King Gerontius and to all the priests of God throughout Damnonia, Aldhelm the Abbot sends greeting." Considering the distinctly British policy of succeeding West Saxon kings, I am almost inclined to agree with those who suggest that the apparently Welsh factors in some royal West Saxon names, and the royal family of Wessex had really intermarried with the royal families of the Welsh princes, and was therefore partly Keltic by descent. For a hundred years after Ine's victories, we hear no more of conquests towards the west. During the whole of the eighth century, indeed, which is the period covered by the greatness of the West Saxons, seem to have had enough to do in protect-

the Welsh and the men of Devon at Gafulford (Camelford).¹⁷ the men of Devon are spoken of as hostile to the Welsh, they must by this time have been fully subdued to the West Saxon rule, and have been fighting the battles of the West Saxon king. The fight at Camelford thus marks the final and complete subjection of Somerset and Devon.

In these cases, again, we have good evidence of the extent to which the aboriginal people survived. The inhabitants of the shires were known as Sumorsætas and Defnsætas, settlers of the Sumor district and among the Devonians. Probably, here, too, the families of English lords lived among a large number of real Welsh or semi-Keltic churls. Certainly, at the present day the blood of the two counties is largely Kelt-Euskarian. The results of the clan-settlements gives us like results. In Somerset the number is 45; in Devon 24; as against 68 in Sussex, 60 in Kent, and 76 in Lincoln. Taking the proportion to the absolute number of the counties, we have relatively 36 in Somerset and 13 in Devon, to 51 in Kent, 62 in Sussex, 61 in Norfolk, and 49 in Devon. That Somerset and Devon were mainly peopled by Danes is clearly taken for granted by William of Malmesbury, and other writers before the thirteenth century who had any knowledge of western affairs.

The times of the Danish invasions form the critical period in the relations of Wessex with the West Welsh. At first, it is the West Welsh (or Cornish as we may henceforth call them), not the West Saxon, who are hard by the Saxon power, were ready to combine even with the heathen invaders against their English foes; and in 835, that a force of Wickings came to the West Welsh, "and they gathered together and warred against Ecgberht, the West Saxon king. In that time, the common resistance of all the Christian inhabitants of Britain to the heathen pirates placed the West Saxon king in the position of protectors to the entire community, Welsh and Cornish alike. From the year 833, the Cornish princes were subject to the West Saxon king, and the Cornish bishops made profession of their allegiance to Canterbury. Here it may be as well to finish the history of the bare facts as to Cornwall, where the almost entirely Keltic character of the population is not disputed. As late as the reign of Æthelstan, there were still tributary native princes in Cornwall: and it was not till 950 that an Englishman was introduced into the Cornish bishopric. There are only two clan-villages of the English type in the whole county, both near the Devonshire border, and one of them close to Hengestesdun (Hingston), where Æthelstan defeated the combined West Welsh and Danish army.

continued to be spoken over the whole county in the time of King Ælfred VIII. By Queen Anne's reign it was confined to five or six parishes in the western portion of the county; and even at the present time it still survives in some few sentences among the old people near Penzance.

The Englishman had thus driven the Welshman, politically, to the Land's End. But socially, if I mistake not, the Welshman still survived all over the country west of Selwood. King Ælfred, indeed, in his will, apparently speaks of all the people of Devon, Somerset, Devon, and Somerset as "Welsh-kind"; and to conquer this Welsh-kind was, I believe, the great object of the West Saxon kings during the whole of the Danish struggle. From the facts it seems clear that the royal house of Wessex loved best to live among these newly conquered people, where they would, perhaps, be themselves more of kings than among the freemen of Hants and Devon. Here, too, they probably had more estates, more slaves, more rent-paying churls, to look after whom was doubtless the duty of that mysterious officer, the Welsh-reeve. At any rate, it is clear that King Ælfred threw himself wholly upon the Welsh-kind in his struggle with the heathen Danes. He retired to Selwood among the Somersetshire marshes in his sorest need, and he died on the host with that part of the Somerset men that was left.

When he emerged from his retreat, the men of Somerset, Devon, and Hants met him at Selwood, and fought the Danes with him. In his first interval of peace, he chose a Welshman—Asser, a Welshman—David's—to be his chief adviser, and made him bishop of Exeter and of three "parishes" in Cornwall, with his see at Exeter, a Welsh city. Later on he transferred Asser to Sherborne, Devonshire to that bishopric. It is noticeable that Asser uses the Welsh names for many places in Wessex, as William of Malmesbury does far later; which shows that Welsh must still have been spoken by the servile classes as far east as Selwood.¹ That the English should thus put a Welshman into the highest position in the conquered provinces, seems to me a clear proof that he wished to affiliate the natives as a means of strengthening their allegiance in the great conflict with the heathen. Equally significant is the fact that in Ælfred's legislation, the distinction between English and Welshman before the law, so strongly insisted upon in the laws of Ini, is quietly abolished.

The question of the authorship of the life of Ælfred assigned to Asser need not be gone into. Though certainly not all his in the form in which we get it, *the part is clearly written by a Welshman, who is, at least, as likely to be Asser as anybody else.*

al Anglicisation, not of true English colonisation and con-
extermiation of the Welsh. We have first, in Hampshire,
nucleus of thorough English settlement, where the people
in the first almost all Jutes or Saxons, holding in subjection
body of aboriginal serfs. Then we get an extension into
Berks, and Dorset, where the English were probably fewer in
number, and where the Welsh serfs bore a larger proportion to their
masters. Next, we come to Somerset and Devon, where the mass of
the people are still of purely Keltic (or Kelt-Euskarian) descent, and
where the Anglicisation was accomplished by the presence of a few
English landed families, and by the necessities of intercourse,
as it has been accomplished in the greater part of Ireland in
the present day. Last of all, we reach Cornwall, where the English rule
has been to time more than a mere political supremacy. Probably
at first the English language had it all its own way in Hants,
but must have rapidly spread over Wilts, Berks, and Dorset; but
in Dorset, Welsh or Cornish was almost certainly spoken among
the peasantry at least as late as Aldhelm's time, perhaps as late as
the present day. In remote parts of Devon it survived even to the days of
the late King; and in Cornwall it is not yet wholly extinct. Accordingly,
at least, we see that the anatomical and anthropological
evidence is not in any way contradicted by the historical evidence;
and the hypothesis of extermination is not really borne out at
all by the facts of the case. For a long time the Welsh-kind no
doubt remained socially inferior; but in the modern mixture of
blood it is impossible to say who is a Kelt and who is a Teuton.
Let it be forgotten that a constant emigration is now going on,
and has gone on for many years, from the most Keltic shires of
Dorset, Somerset, Devon, and Cornwall—towards London
and the East; thus largely increasing the Keltic element in the popu-
lation of what were once the most Teutonic parts of England. If
we have the same documentary evidence for Mercia and Northumbria
(unfortunately we have not), it is probable that there too we
should find good reason to believe in the survival of the aborigines
in very large numbers. At any rate, we may well rest satisfied
with the dictum of Professor Huxley, that in modern Britain the dark
type of humanity now distinctly preponderates over the light type.
In words, the inhabitants of our islands at the present day are
as much British as they are "Anglo-Saxon." It is no doubt true
that the powerful Teutonic element has contributed the language, the
laws, the institutions, in one word, all the form; but the half-forgotten
(or Kelt-Euskarian) element has apparently contributed at
least to the matter.

GRANT ALLEN.

CHARLES READE'S NOVELS.

I BELIEVE the publishers—who have their opinions just as other people and perhaps may be supposed to know something more books—are fully agreed upon one point, that women are more successful writers than men, looking at the question from publishers' point of view. Considering that there are a dozen women who read novels to one man; that most women, like men, are lacking in imagination, and therefore like to have their passions fed from their own feminine point of view, this fact does seem remarkable. Probably Scott's novels, when they first came out were in less demand than those sweet works of *Laetitia Matilda Hawkins*: and we can very well understand how those books which prophesy smooth things, except all the little social make-believes, consider the universe as if they were actually the Revealed Law may be more delightful to many people than those which set forth grave and terrible realities of the world, the solemn responsibilities which years bring upon us all, the temptations which beset us, ambitions and the disappointments, the inherent nobility of human nature, the possibilities always open to the most fallen, and the importance of every single man's conduct to those who are associated with him.

Making every allowance, however, for the people who read only to be made to laugh, for those who have small imagination, for those who like smooth stories of society, and for those who like to read what may be called "Tales of the Lower Nature," it has always been a matter of great astonishment that the appearance of a novel among us like Charles Reade should not have been received—not to say with wider popularity—but with a more ready and generous appreciation on the part of the critical press. The true and best distinction which a writer can obtain is the appreciation of the general reading public; and it may be said of the novels of the dramatist that critics, who may at the outset greatly help a man, cannot, even if they try, extinguish him. Critics, for instance for a good many years went on trying to extinguish Miss Brad but they failed, and her books continue to rise in reputation.

all kinds of hard things about her ; yet she got a larger *clientele* every new novel. The reason was that the critics only saw certain gross faults of style, and failed to see beneath the style the genuine story-teller. The real secret why Miss Braddon has succeeded is because she has always a good story to tell, and has always told it effectively. In fact, there is good reason for the success of every novel that does succeed. It may be in bad taste—the majority of mankind do not know good taste from bad ; it may be vulgar—the majority of mankind are themselves vulgar ; it may turn on forms of wickedness about which some people prefer not to speak, but others love to read ; it may treat of the lowest depths, like “L'Assommoir” ; some people like to be in imagination among the very beasts of the people ; so that, if a work of fiction be in demand, it behoves the critics to discover what are the qualities which cause this demand. Now in the case of Charles Reade we have a long series of novels, every one of which has been successful, and many enormously successful, yet he has received from critics nothing more than the usual brief comment, accorded to every writer of the least name, as each novel was presented to the world. I am not so foolish as to suppose that critics ever try to keep a man down ; here and there a malicious onslaught may be made, but as a rule they seem to me a hard-hearted and indulgent body. There is, however, a wide difference between recommending one book after the other, and forming a deliberate judgment on the position occupied by the author of many remarkable novels. There exists, perhaps, among critics something of the sheeplike quality which makes them follow where one has had the courage to lead. No one has yet led so that, while we have been inundated with essays on the genius of George Eliot, Miss Thackeray, and others, I do not remember to have read one single serious effort to explain Charles Reade's success, to account for the popularity of his novels, or to award him his place among English authors. Perhaps his success is not even known. Yet, I believe that, among those who do know, it is perfectly well understood that of all living men who write novels, he is the most widely known, the most read, and the most admired. Remember that there are the people in America, in India, and in our colonies, to consider, besides the subscribers to our circulating libraries. In the quiet plantations, on the coffee, tea, sugar, and indigo estates, on the silent sheep runs, in far-away farm-houses, in the States and Canada and the colonies everywhere, the men read novels. Here, in this country, there are more women readers of novels than men. In the colonies men and women together all love novels, and read as many as they can buy. And if

all English-speaking readers were to vote for the best novelists, there can be little doubt that they would vote for Charles Reade. Since the *Quarterly Reviews* have been silent, I should like to be allowed to state some of the reasons in my mind, have united in placing this writer in this position. I wish, be it understood, to speak not as a critic, but as a reader. I am one of those who would so vote. I entirely agree with the popular verdict. I, for one, consider that Reade takes his rank with Fielding, Smollett, Scott, Dickens, and Thackeray: that in the great and delightful art of fiction, wherein the English are always, in every age, doing something better than the French—have surpassed the world, Charles Reade stands foremost and best.

First, then, he is a scholar. This means, among other things, that he brought to the study of living man and woman a knowledge of ancient men and women; he knew what to expect. The forces which impel mankind and drive us hither and thither have always been, the same. Necessity still rules those who speak English as she ruled those who spoke Greek; the same forces assail us: they are met with the same heroism or the same cowardice; the way of the least resistance is always open to man; generally, to his discomfiture, takes that way; we change not the mind of man when we read Aristophanes, Lucian, and Horace: those have become already critics of human nature who have read these writers. A liberal education, of course, is more than this—does Reade's strong and vigorous style owe its origin to his early compositions in Latin and Greek?—but this is surely not all. Before that great anatomist, Rabelais, held his scalpel in his hand, he studied all that was written by the men of old on the human body, when, filled with awe and adoration towards the Maker of the world, a mechanism, he stood before his subject about to probe its mysteries of the body, he knew what to expect. So he knew how to show the mysteries of action, thought, motive, and desire, which have been studied in the ancient schools. It is a great injury, that we have done to women in withholding from them a liberal education. In restoring it to them at their new Colleges and Schools, we have taken the greatest step towards putting them on the same level with men. I believe that by means of *literary* education women will recover the critical faculty, learn what is meant by a study epigram, and, perhaps, cease to believe without reason. It will be a strange outcome of this revolution in education, if in the future *or so* the women novelists will write like Reade rather than like *their predecessors* of the present generation.

Secondly, Charles Reade is a dramatist. Observe that the drama permits almost everything except verbosity and tameness. A drama may have nearly every fault, and yet succeed if it be lively and not verbose. But the great majority of novels are verbose to the last degree, without action and without incident. If such a story as "Griffith Gaunt," for instance, be compared with almost any ordinary novel of the day, the first note of difference will be found in the overwhelming amount of incident in the former as compared with the latter; the second, that the descriptions of persons, scenery, place, voice, gesture, &c., necessary in every novel, are much shorter in "Griffith Gaunt" than the other. The third, that the conversations do not drag and seem too long or discursive, but that they carry on the action and develop the characters. Our old dramatists hung up a scroll on which was written "A Room in the King's Palace." The actors by their dialogue and their gestures presently brought the place home to the imagination; the spectators saw that splendid room—they were actually sitting in it; they were assisting at the Council of the King's most excellent Highness—though the play was but on trestles in the courtyard of an inn. Slow brains saw nothing then, as now; if you give them the stage mounting of the Haymarket, they see no more. You cannot by any means of upholstery tear out of himself for a moment the unhappy wretch who has no imagination. Now Charles Reade in his novel work resembles the old dramatists. If he takes his reader to a North Country fishing village, he does not make up an elaborate picture of the houses, the boats, the nets spread out upon the seashore, the smell of the fish, the narrow streets, the reek and the dirt of it. I do not say that in some hands such a description is not pleasing, but it is not part of Reade's method. He is not a painter of scenery nor of houses; he does not care for picturesque "bits" and effects of light unless they help his story; he is a painter of men and women. Therefore, in the space of half a page or thereabouts, he introduces us briefly to the kind of folks we are to meet, and then sets them to talk for themselves. Not a bit of furniture; not an inch of tapestry; no blue china; no cabinets; yet, when all is told and the curtain drops we know the place where the people live better than if we had read pages of description. This is the art of the dramatist. Fielding, who is also a great gossip and perpetually talking to the reader on his own account, possesses this art; his characters by their acts and their conversations reveal themselves and their surroundings. For my own part, I have always wondered how Charles Reade could bear his novels to be illustrated, *except out of kindness to his weaker brethren.*

I saw lately, in a review, the statement, perfectly and true, but actually made as an objection, that Reade drew his characters "from the outside." Exactly; the dramatist draws his characters "from the outside." There they are, on the king with his crown, the soldier with his sword, the priest with his shaven crown; what more do you want? Presently they talk, and they show themselves, as they go on, building their characters bit by bit, or it may be revealing themselves by two master-strokes. The forcible-feeble writer describes his characters "from the inside"; that is, he tells you before what he wants you to think of them. This method helps those whose imaginative powers are weak; it will, therefore, continue to be practised and to be in demand. But which, may we ask, is the better Art, to make the characters reveal themselves, or to draw them from the "inside"?

Looking, therefore, upon his story always as a dramatist's, his plot, Reade, at the outset, seems to have considered strength as the first essential in his work. He aims continually at strength, and achieves strength in three ways: first, by a style which is always in, nervous and vigorous, in the purest English; next by clear vision in his own mind. You *cannot* draw a portrait which you do not see the face. Witness the blurred features of Daniel O'Rourke, whose portrayer wrote round him and about him right through dreary volumes—or, was it six?—and left him as uncertain to the reader as he was to his biographer. Thirdly, Reade's strength is achieved by his conscientious fidelity to truth. Not only is he true to his characters, but he is *true to his plots*. I mean this: that so many complications possible in life, that there is no one whatever in finding the materials for a story; but the materials have story and characters to match. He must have played the parts and looked the characters; he must have a plot which springs naturally from the given conditions, and does not appear manufactured. The age, the position, the very names of the characters must belong to his story. Now all Reade's stories are so strong in their studied art, which seems so unstudied, that they depend upon situations which in less skilful hands would be merely melodramatic. In his, they belong to the natural development of the plot. Thus, "It is Never too Late to Mend" is a long series of striking incidents; it is like a French play in the style of *Cinquante Tableaux*. There is material enough in a dozen three-volume novels, with the word-spinning and "drawing" which fill them out. In "Love me Little, Love

the contrast between David Dodd and Reginald Talboys, struck almost at the opening, is a situation in itself maintained throughout with wonderful skill and success. Then, is there anything more delicious than Peg Woffington pretending to be a portrait in Triplet's studio? In "Put Yourself in His Place" he covers the canvas with incidents, he is prodigal of incident, as becomes one who is fertile in devising situations continually new; while in the short "Wandering Heir" he has at least half-a-dozen situations all new and all strong. One need not continue the list. Enough has been said to show my meaning, that strength is the main quality desired by this author.

Endless as are the variations which differentiate men, so that the day will never come when the choice is exhausted, the novelist who has studied his art has to remember that, while many of the varieties lying ready to his hand are uninteresting, he has to select for the purposes of his groups only those who will fall naturally into line with the rest, and be able to take their part in the development of the story. If you consider, you will observe, that Reade never introduces a needless character.

Nothing more hinders a play, nothing more endangers its success, than a character not wanted. Reade, as I have said before, writes his novels as if he were writing a play. Scene after scene, act by act, the story advances. What does not help the story along must be cut out. And as in a play a man does not come on the stage with a paper tacked on his back describing his character, but proceeds to show himself by words, so in these novels every character shows who and what he is by words and deeds. Many weak writers can imagine vividly and can describe, more or less, what they imagine their characters to have done and why they did it. Reade, on the other hand, I repeat, does not describe; he makes his puppets act their own story, and tell it themselves, putting in only here and there the necessary explanation, the *callida junctura*, which must never be beside the subject, and must, like the conversation, advance the story. He is not himself a narrator so much as a dramatist. His works are almost ready for the stage, his characters portray themselves.

Strength, truth, animation—these are three excellent qualities for a novelist to possess; they will not be denied to Charles Reade even by his enemies. There is, however, a great deal more.

I have observed that he is a scholar and a student; he says himself ("Wandering Heir," Appendix, p. 305): "I studied the great art of Fiction closely for fifteen years before I presumed to write a line of it. I was a ripe critic long before I became an artist. My

critical knowledge has directed my art, but the practice has not diminished my studies." He has approached Art in the truest spirit, that of a resolute student who knows is much to learn, but is conscious of his powers. I know an example in history of a writer who deliberately proposed to be a novelist, and spent fifteen years in preparation for his work. His preparation was manifold: in meditation about the quiet life of Magdalene; in cultivated talk in the Fellows' Common room; in life among books; in life among men; in studies of French history and of France—Reade's wide reading in French literature gave a French flavour to his work which is as charming as it is effective, and is recognised by those who also read French. When he brought forth his first work—it was, I think, "Peg Woffington"—it, in fiction, already full grown, stood before the world.

In another part of the Appendix to the "Wandering Jew" defines fiction as the art of weaving fact with invention. To say, on to say, it were mere arrangement of fact, thousands of men do it; the paragraph-writers and penny-a-liners would be the only novelists; if it were pure invention, the young would beat the old men out of the field. But they do not, because, though they have invention, they have not accumulated facts, and they have not the example of Dickens is the only great novelist who made an early success. There are many circumstances in his youthful history which account for that success.

Let us, therefore, consider what is meant by the word reality. He means that whatever be the story finally decided upon by the novelist, it must be based upon a solid substructure of fact which must not be invented, but be a faithful and true representation of reality. Now, the hardest thing in the world to do is reality. There are six hundred and fifty men in the House of Commons hammering all night long, and every night, they call reality, and the only reason why they do not succeed is because they cannot convince each other of the real truth. What then, is the novelist to do? He must go to all the available sources of evidence; he must collect together all the undisputed facts; he must draw his own conclusions; he must spare no pains in working out the problem for himself, so far as the data allow, and write down the result. Thus, to illustrate Reade's method: he found in the history of the Unions and the strikes, with all the tyrannical cruelties and the want of law and justice manifested in bringing the men within the law, an excellent subject for his pen. He began, therefore, by collecting together, arranging, and digesting a solid body of facts; he

them from various local journals, from blue books and reports, very largely from visits to Sheffield and other places, and from conversations with workmen and their leaders. When he had got these quite ready, and not before, he constructed his story. Now, a story may bend itself to facts, but facts cannot be got to accommodate themselves to a story. There is the result, however—an actual representation of a Trades' Union, a living chapter for future ages of this nineteenth century life.

All his books, again, represent life in action. Thackeray loved to sit at a club window and watch the procession along the pavement of old fogies, old bucks, old warriors, old dowagers, young dandies, girls in carriages, actresses, gamblers, brave young country lads, admiring colonials, and the rest who make up the world of clubs and of society. Reade, who cannot be compared with Thackeray, because there is no single point at which they touch, loves the life of action. It is the brave workman fighting single-handed against a Trades' Union ; it is the young sailor, handsome, gallant, and simple-hearted, against the man of the world ; it is the girl disguised as a man ; it is the wretched criminal struggling upwards to the level of self-respect, or the husband tortured by jealousy ; always real life, with flesh and blood temptations and a hatred of hot-house and artificiality ; all his characters—yes, all—are men and women, because, if he flings a figure even for a moment on the canvas, he finishes it with a few bold strokes, and it remains a portrait, not an uncertain phantom : the true artist will not scamp any part of his work. Everybody is real ; everything seems to happen as it might happen to all of us, even when the scenes are the most romantic, and the situations are the most unexpected ; and this because he weaves his fact with his inventions, so that one hardly knows where reality ends and romance begins. And the novels, taken altogether, cover so wide an area, that we may certainly accord to Reade the glory of being the chief painter of English modern life in its many forms, from the belle of the season to the fish-sag, and from the peer to the convict. I believe, however, that the great uninteresting stratum of life known as the "lower middle class" has been left quite untouched by him, probably because he knows nothing of it.

He gathers his material where he can, like Molière and Shakespeare. If he wants to write about modern times, there are the daily papers, the essays of the monthly press, the blue-books, the pamphlets of all kinds of things. If he wants to write about the past, there is the literature of the age to teach him. Some years ago an attack was made upon him on account of this very use of literature. I

would rather not speak of the trouble, because the assa more among us. But one must allude to it. In the st "Wandering Heir" the author had occasion to describe th of a ladies' party. He went to that treasury of social m customs, Swift's works, and found in the well-known "Jo Modern Lady" the ordering of a lady's whole day, from evening, with the style of talk which went on. He was plagiarism, and defended himself in a pamphlet which allowed to be a masterpiece of good English as well as invective. The following is the process, as described by which he handles his materials. The perusal should be for young novelists :—

The first strata of facts I had to build my figment on were two rep in one James Annesley was defendant, on a charge of murder ; in the v. Anglesey), he was virtually plaintiff in a trial at bar, for great estal You will find the first case in "Howell's Collection of State T second, Craig v. Anglesey, is badly reported in Howell. I used the published by Smith & Bradley, Dublin, 1744. This book shall be di my publishers, that any novelist, or critic, who likes, may see the use of it.

The next source of fact was the "Memoirs of an Unfortunate written by James Annesley's attorney. Upon the whole it is a tin hoods ; but there are a few invaluable truths in it. The lies declar trumpet-tongued ; the truths are confined to James Annesley's adve he was a slave in the colonies, and his return home with Admiral used a few of the truths, and shunned all the falsehoods. "The Men rather a rare book, shall be deposited with my publishers for inspecti

In the three books I have now named lies half a plot. But on of equal power with the facts, could make it a whole plot. Therefor Philippa, and all her business, and the whole sexual interest of the at

I tell you this union of fact and imagination is a kind of intellet tion, and has procreated the best fiction in every age, by a law of Na

To go into smaller details, the Irish schoolmaster and his "in from facts supplied in print by Carleton.

The Irish curses I have used are culled, with great study, from t -- Carleton. Banim. and Griffin—and selected from an incredible num

In the other Hiberniana of the story I have used the various histories of Dublin and Cork, by Gilbert and others, the *European Magazine*, the "Post-chaise Companion in Ireland," "Letters from a Gentleman in Ireland to a Gentleman in Bath," rather an uncommon book; and a very rare collection of old Irish journals I obtained by groping that city for them.

The charming series of incidents, in which John Purcell figures, are from his sworn evidence, and almost verbatim. The abduction of the heir in open daylight is also sworn evidence. See *Craig v. Anglesey*.

The uncle beating his niece, her flight to foreign parts, and his apprehension on a charge of murder, is a recorded fact. I got it out of a chap-book; but it has been referred to by jurists in my own day, and I also possess it in a ballad called the "New West Country Garland." James Annesley's adventure with Christina McCarthy, her sham penitence, her cajolery, and attempt to poison him, were told by James Annesley to his attorney, and printed by him in "The Memoirs"; and I have set that gem of female nature in my story. The discovery of James, on board Admiral Vernon's ship, by his old schoolfellow Matthews, rests on the same basis of recorded fact. The curious advertisement by Jeweller Drummond is an actual advertisement of the day, taken verbatim from the *Gentleman's Magazine*. Banker Drummond's ancestor inserted it.

Elizabeth Shipley's character and her remarkable dream about Wilmington—this and other Wilmingtonia are condensed from Ferris's "History of the Original Settlements on the Delaware," and from Barker's "History of the Primitive Settlements."

But whatever, in that part of the story, bears upon the flagellation and other punishments of men and women, and the legal relation of the planters to their white servants, has been taken direct, with careful study and precision, from the various "Charters and Acts of Assembly" of each separate State at or near the date of my story. And here my method has kept me clear of the errors of James Annesley's attorney, who says, in "The Memoirs," that two of James's companions were executed in the *State of Delaware* for elopement and suspicion of adultery. Now the law in that State inflicted no such punishment. It imprisoned, whipped, and lettered. It did not kill. These colonies were hard upon religious offences; but, on the whole, they did not take life half so recklessly as the mother country did at that time, and, with regard to sexual criminality, they exacted such difficult proofs, that their laws on that head were much thunder and little lightning.

The Anglicana generalia have been culled with care from periodicals and books of fact too numerous to specify. The masculine costume the women wore in the morning rests on Addison, *Mist's Journal*, the *London Journal*, *Gentleman's Magazine* for 1730, *Daily Courant*, and other contemporaneous authorities which are full of detail. The entire reversal of female costume in the evening rests also on contemporary books, periodicals, and pictures.

Lord Anglesey's levée and toilet are put together from *Mist's Journal* and various passages in the "Pictorial History of England."

In my novel of "A Simpleton" there is a dressmaker's bill, 1872.

In "The Wandering Heir" there is a dressmaker's bill.

I got the modern dressmaker's bill by asking three or four ladies of my acquaintance to oblige me with the original accounts. They did so.

I was about to pursue the same plan in "The Wandering Heir," when I found, to my disgust, I could not raise the dead. So I had to ransack libraries—"The graves of those who cannot die."—*Crabbe*. I found the truth I wanted in "The Book of Costume, or Annals of Fashion," by a Lady of Rank.

The parson of Colebrook charges the best bred ladies of his ignorance. I found that in numerous authorities—Lady Mary Tague's letters, Mrs. Stone's "Chronicles of Fashion," and, all family letters before and after that date. As for their bad spelling long after the date of the parson's observations; other ladies spell besides Miss Tabitha Bramble.

That in England and Ireland the men drank hardest, but the most, I gained from essays and plays of the time.

How Dublin gentlemen lived, I got from "Barrington's Memoirs Sixty Years Ago," &c.; and how a Dublin Lady passed her time, from Swift's photographic verses, which carry truth as plainly written as Tacitus and Tacitus carry falsehood.

If I could have raised three ladies of Dublin from the dead, I should have troubled Swift. But I can't raise the dead any more than Mr. Hume. I have no personal experience of the year 1730; so I took the source of truth, and interwove printed, but reliable, fact with my

The possession, then, of scholarship, which gives taste, and discernment, strength of treatment, clearness of fidelity of portraiture, fidelity of incident, the carefulness of the life of action, truth in facts—these are qualities which justify themselves to justify a place in the very first rank. But more. I think, as I have already said, that the collected works of Charles Reade's novels present a more complete picture of English life than can be found in the works of any other novelist. Separate novels by Trollope, Hardy, Mrs. Oliphant, Laurence Oliphant, stories by Miss Mulock, and plenty of other portions of life outside the field of Charles Reade; but Charles Reade covered so wide an area, or studied so carefully or represented so successfully the living, moving, struggling, acting life. I do not set up comparisons between Reade and Trollope, or any other writer. To each his gifts. It is, however, a very remarkable and suggestive thing about Reade that he cannot be compared with any other writer cannot lay hold of Reade here and of Trollope there, or of any other writer, in their treatment. He is absolutely unlike Thackeray; he has no resemblance to Dickens; with Blackmore, Hardy, or George Meredith, the three who seem to me to come next to Thackeray, I think, Charles Reade, he has not one single point in common. The impossibility of either comparing or classifying Reade, or of judging him from any other point of view which admits any other writer, is, to my mind, one of the strongest proofs of his excellence.

I propose next, by way of illustrating these remarks, to consider, very briefly, two of his works. The first of these is the earliest—"Christie Johnstone." It was written early in the century. There was then, as now, a good deal of rubbish about

critical, that is to say, the majority. A few were trying to get Art out of conventional grooves—Art of all kinds gets perpetually into grooves out of which it is the business of men with brains and clear eyes to drag it. Then there was a great deal of nonsense talked by certain followers of Carlyle about mediæval men and the decadence of modern times, as if the present was not better than the past. And there was a considerable quantity of ecclesiastical squabbling, the meaning and importance of which is now happily quite forgotten and lost, as is the way with this sort of foolishness—only that more foolishness of the same kind is always succeeding.

Charles 'Reade—I am not going to tell a good and well-known story badly—takes his hero out of the City of Babble-dom right away to the country of caller herrin' and fish-wives. Would you know what the fish-girls are like? Then read the following, and observe that the ordinary novel-writer would not convey so clear a portrait in ten times the space.

On their heads they wore caps of Dutch or Flemish origin, with a broad lace border, stiffened and arched over the forehead, about three inches high, leaving the brow and cheeks unencumbered.

They had cotton jackets, bright red and yellow, mixed in patterns, confined at the waist by the apron strings, but bob-tailed below the waist; short woollen petticoats, with broad vertical stripes, red and white, most vivid in colour; white mottled stockings, and neat, though high-quartered shoes. Under their jackets they wore a thick spotted cotton handkerchief, about one inch of which was visible round the lower part of the throat.

Of their petticoats, the outer one was kilted, or gathered up towards the front, and the second, of the same colour, hung in the usual way.

Of these young women, one had an olive complexion, with the red blood mantling under it, and black hair, and glorious black eye-brows.

The other was fair, with a massive but shapely throat, as white as milk; glossy brown hair, the loose threads of which glittered like gold, and a blue eye, which being contrasted with dark eye-brows and lashes, took the luminous effect peculiar to that rare beauty.

Their short petticoats revealed a neat ankle, and a leg with a noble swell; for Nature, when she is in earnest, builds beauty on the ideas of ancient sculptors and poets, not of modern poetasters, who with their airy-like sylphs and their smoke-like verses, fight for want of flesh in woman and want of fact in poetry as parallel beretics.

Christie was the fair one. Do you want a more finished portrait? I do not: it might have been sent to the Academy.

The young lord, sated with pleasures and wearied with idleness, is attracted by this girl. She sells him herrings; she can tell a story; she can dance.

The principle of reel dancing is articulation; the foot strikes the ground for

every *accented* note (and by-the-by, it is their weakness of accent. English reel and hornpipe players such failures).

And in the best steps of all, which it has in common with the as the quick "heel and toe," "the sailor's fling," and the "down foot strikes the ground for every *single* note of the instrument.

All good dancing is beautiful.

But this articulate dancing, compared with the loose, lawless diff that goes by that name, gives me (I must confess it) as much m articulate singing is superior to tunes played on the voice by a yo

Or the clean playing of my mother to the pianoforte splashing, though the latter does attack the instrument as a washerwoman h the former works like a lady.

The story contains one situation at least which is itself and splendidly told : the rescue of her lover by C cannot ask for space to tell it. Besides, it is too And the lover marries his Christie. They are left with life beginning in youth and happiness.

What terrors has old age for this happy pair ? it cannot make though the purple light of youth recedes, a new kind of tranquil blossoms of many years of innocence, comes to, and sits like aged faces, where goodness, sympathy, and intelligence have had so long ; and where evil passions have flitted (for we are all human no resting-place.

Old age is no calamity to them : it cannot terrify them ; for e married a week the woman taught the man, lover of truth, to highest and greatest truths, in a book written for men's souls, b the world, the sea, the stars, the sun, the soul ; and this book, a as the good bishop sings—

" Teach them to live, that they may dread
The grave as little as their bed."

It cannot make them sad, for ere it comes, loved souls will b earth, and from their tender bosom, but not from their memories ; to beckon them now across the cold valley to the golden land.

It cannot make them sad, for on earth the happiest must d cup more than once in a long life, and so their brightest hopes to dwell habitually on things beyond the grave ; and the great pain will chiefly meditate upon a richer landscape, and brighter figure hand has ever painted ; a scene whose glories he can see from glimpses, and through a glass darkly ; the great meadows on the Jordan, which are bright with the spirits of the just that walk warmed with an eternal sun, and ring with the triumph of the true, and the praises of God for ever.

I find this, almost the earliest outcome of Charles Re the most significant and the most characteristic. There contrasts which he loves between the conventional and conscious artificial and the unconscious natural ; there i action, the truth and fidelity of fact, the dramatic si freedom from verbosity, the clearness of vision, the e

talk, and the indignation of the moralist ; above all, it strikes the note of the True Woman.

Reade, in fact, invented the True Woman. That is to say, he was the first who found her. There have been plenty of sweet and charming women in stories—the patient, loving Amelia ; the bouncing country girl, Sophy Western ; the graceful and *gracieuses* ladies of Scott ; the pretty dummies of Dickens ; the insipid sweetnesses of Thackeray ; the proper middle-class (or upper-class) girl of Trollope ; the conventional girl of the better lady novelists. There have also been disagreeable girls, especially the bad-style, detestable girl of the “worser” lady novelists ; but Reade—the *trouvère*—has found the real woman. You will meet her on every page of all his novels. What is she ? My friends, Columbus's egg was not simpler. She is just exactly like a man, like ourselves, but with certain womanly tendencies. Like ourselves, she ardently desires love. She knows that it is the best—the absolutely best—thing the world has to give ; that we were all born for love—man and woman alike ; that to lack this consummate and supreme blessing is to lose the best part of life. Since she desires above all things to be wooed, and is forbidden to woo on her own account, she conceals her own thoughts, yet, from her own experience in hiding, she is quick at reading the thoughts of others. She is satisfied with nothing less than what she herself gives, which is all herself. Her reserve leads her, in the lower natures, to deceit and falsehood. Her devotion, which is part of her nature, leads her—also in the lower natures—to suspicion and jealousy. She is always in the house, and therefore her mind is apt to run in narrow grooves. The prodigality and wastefulness of men are things beyond her understanding or patience. She is unversed in affairs, and therefore comprehends nothing of compromise. She is generally ill educated, and therefore is incapable of forming a judgment ; hence she is carried away by every wind of doctrine ; as, for instance, in matters ecclesiastical, knowing nothing of the Early Church or its history, she believes the poor little Ritualist curate, who knows, indeed, no more than herself ; or in Art, where, for want of a standard, she is led astray by every fad and fashion of the day, and worships sad-faced flatnesses with rapture ; or in dress, where, her taste being uncultivated, she puts on whatever is most hideous and unbecoming, provided it is worn by everybody else. This is the woman whom Charles Reade presents to us : she is not, at all events, insipid ; no real women are ; if she is artificial, he shows the real woman beneath. What he loves most is the woman whom fashion has not spoiled ; the true, genuine woman, with her natural passion, her jealousy, her devotion, her love of admiration, her fidelity,

her righteous wrath, her maternal ferocity, her narrow shrewdness, even her audacity of falsehood when that purpose, and her perfect abnegation of self.

An objection has been made to Reade on the ground of wanting in fun. He is not, certainly, a comic writer, nor is he who writes mirthfully; but he is always a cheerful and his studies have led him to think, on the whole, well of his age is hopeful. More than this it would be absurd to expect of a man who makes of each "case" before him a study of human nature; he is eminently hopeful.

There remains one book of his on which I have nothing to say. It is his greatest work—and, I believe, the greatest historical novel in the language. I mean "The Cloister and the Hearth." It has been my happy lot to pasture in the mediæval literature, and my delight humbly to attempt to restore in my time the restoration of life as it was during or before the Renaissance. Now, life at all times, except perhaps during the iron and flint-weapon period, has been, and is, many-sided, and perpetually varying. Think how it will fare in five hundred years with the writer who attempts to portray England in this year by what mighty labours—what examination of old customs, what comparisons, reading of contemporary essays, descriptions of Functions, ceremonies, and debates, estimate of forces—estimate of the strength of the Land League, the real power of Nonconformity, the strength of the Church, the prejudices of the people—what is at something like a picture of life as it is now. And the hands of the most skilful how meagre will probably be. Because the historian will not be able to understand the relative importance of questions, nor will he perceive that what to him the most important of events may have seemed a mere trifle compared with the weight of a speech in a court, or a new book, or even an article in a magazine. I do not say that the whole of life, as it was at the close of the fourteenth century, is in "The Cloister and the Hearth." I do say, that there is portrayed so vigorous, lifelike, a picture of a time long gone by, and differing in almost every particular from our own, that the world has never seen its like. It is a picture of the past more faithful than anything in Scott. As one reads it, one feels in the very atmosphere of the story; one breathes the air just before the Great Dawn of the Reformation and Religion; it is still twilight, but the birds are twittering on the boughs; it is a time when men are weary of the

freshness or vigour in the poetry; all the tunes are old tunes. There is plenty of fanaticism, but no faith; under the tiara the Pope scoffs; under the scarlet cloak the cardinals scoff; in his chamber the scholar asks whether the newly found Greek is not better than all the ecclesiastical jargon; in the very cloister are monks busy at work on the new learning, and cursing the stupid iteration of the old bell; even the children of the soil are asking themselves how to improve. Alas! they must wait till the Greater Jacquerie of 1792 relieves them; there is uncertainty everywhere; there is the restless movement of the world goes before a change. There is, however, plenty of activity in many different directions. Soldiers fight, and great lords lead armies; there are court ceremonies at which knights feast and commoners gape; apprentice lads go a-wandering along the roads; with them tramp the vagrant scholars; the forests are full of robbers; the peasants are a nation to themselves, and a very horrible, noisome, and rebellious nation; the towns are crowded within narrow walls; fever and the plague are constantly breaking out; there is no ladder by which men can climb except that lowered for them by the Church; if a man is born, there he sticks. A fine picturesque time; with a great deal of robberies and murders; vast quantities of injustice; with a plague among the peasants, like locusts among corn, devouring the harvest; with fierce punishments for the wicked, but not so fierce as those which certainly await most people in the next world; with racks, racks, red-hot pincers, wheels, processions of penitents, burning wax candles, cutting off of hands, and every possible stimulus to the senses; yet a world in which virtue was singularly rare. All this and more—is in “The Cloister and the Hearth”; not described, but alluded to. The reader who knows the literature of the times says to himself as he goes on: “Here is Erasmus; here is Froissart; here is Deschamps; here is Coquillart; here is Gringoire; here is Chaucer; here is Luther,” and so on, taking pleasure in proving the truth of the allusion. The reader who does not know, or does not enquire, naturally finds himself drawn completely out of himself and his own world; before he reaches the end, he thinks like the characters in the book; he feels like them; he talks like them. This is the chief effect of the book; but, besides, there runs through it the most beautiful, saddest, and most tender love story ever devised by wit and imagination. There is no heroine in fiction more dear to me than Anne; she is always real; always the true woman; brave in the darkest hour; and for ever yearning in womanly fashion for the love which has been cruelly torn from her.

“Oh! my love,” cried the lover-priest at her death-bed, “if thou hast lived

doubting of thy Gerard's heart, die not so ; for never was woman loved as thou this ten years past."

"Calm thyself, dear one," said the dying woman, with a heavy sigh, "I knew it, only, being but a woman, *I could not die happy till I knew so.*"

Comparison between "The Cloister and the Hearth" and "Romola" is forced upon one. Both books treat of the same period ; similar pictures should be presented in the pages. Yet—what a difference ! In the man's work we find animation, movement, surprise, reality. In the woman's work we find tedium, and the talk of nineteenth-century puppets in fifteenth-century clothes. Romola is a woman of the present day ; Tito is a man of the present day ; the scholar belongs to the present day ; Savonarola is like a hysterical Ritualist preacher ; Tessa is an Italian peasant girl ; nothing is mediæval but the names and costumes. Yet I believe there may be found people who call "The Cloister and the Hearth" a great novel, and who have not even read the story of Gerard and Margaret.

I do not suppose that by these remarks one can add to the real reputation of Charles Reade or to the admiration which the English-speaking races regard his works. They may, however, lead others to consider the position occupied by Charles Reade, which is, and has been, since the death of Thackeray and Dickens, alone in the front rank. He resembles no other writer of his time, dead or living. His merits are his own, and they are those of the best of writers. He cannot be classified ; in order to be classified he must be either a leader or one of a following. Reade is not a leader, he certainly, be accused of following. In fine, he paints things as they are, men as they are, things as they are. What we call genius is first the power of seeing men, women, and things as they are, and then the power of showing them by means of "invention"—by the application of "invention" upon fact. No living man has shown greater power of grasping fact and of weaving invention upon it than Charles Reade.

As regards future work, his most formidable rival is not Charles Reade, he has behind him Gerard and Margaret, Christie, Peg Wrenham, Denis the Burgundian, David Dodd, and a whole gallery of speaking portraits—figures drawn to the life. Whether he will ever do them, one knows not. Meantime, let those who appreciate the most faithful, the highest work in this Royal Art of Fiction, call Charles Reade the MASTER.

NAVAL WARFARE.

THE first striking difference between military and naval warfare is that, while—in theory, at least—the military forces of a country confine their attacks to the persons and power of their enemy, the forces devote themselves primarily to the plunder of his private and commerce. If on land the theory of modern war exempts spoliation all of an enemy's goods that do not contribute to his military strength, on sea such spoliation is the professed object of the warfare. And the difference, we are told, is “the necessary consequence of the state of war, which places the citizens or subjects of belligerent states in hostility to each other, and prohibits all intercourse between them,”¹ although the very reason for the immunity of private property on land is that war is a condition of enmity between the military forces of two countries, and not of hostility to their respective inhabitants.

Writers on public law have invented many ingenious theories to explain and justify, on rational grounds, so fundamental a difference between the two kinds of warfare. “To make prize of a merchant ship,” says Dr. Whewell, “is an obvious way of showing (such a ship) that the state is unable to protect it at sea, and thus is a mode of strengthening the state;”² a reason that would equally justify the practice of nonagenarians. According to Hautefeuille, the difference arises naturally from the conditions of hostilities waged on different continents, and especially from the absence at sea of any fear of a popular *masse* which, as it may be the result of wholesale robbery, serves to some extent as a safeguard against it.³

A simpler explanation may trace the difference to the maritime commerce which for many centuries was the normal relation between the British and Continental coasts, and out of which the navies of the world were gradually evolved. Sir N. Nicolas, describing the naval warfare of the thirteenth and early part of the fourteenth century, illustrates by abundant facts the following picture of it: “During a

¹ Halleck, *International Law*, ii. 154.

² *Elements of Morality*, sec. 1068.

³ *Des Droits et Devoirs des Nations neutres*, ii. 321-323.

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... were boarded, plundered, and captured by ... there had been actual war. Even ... as well in part ... and especially by those of the ... and, judging from ... it would appear that a general system ... was strong enough to restrain.

The government of these days were, however, not only ... only too glad to make ... their wars with foreign powers ... having been dispersed ... were ordered by Her ... possible injury on the French ... their part that they ... but the ... 1242). During the reign of Edward III ... though there existed ... the primary incidents of ... had been at ... via plunder and wanton devastation ... burning ... each other's property, ... benefit whatever. The ... were really the mariners ... depended in time of ... The English pirates, ... to abandon their profitable ... and attack merchant ships ... and Bay ... and, as was supposed, with ... It was not till the year 1413 that Her ... practices of the English ... a reciprocal endeavor on the part of the ... of Europe.³

Maritime warfare being thus simply an extension of maritime law, the usages of the one naturally became the usages of the other; the only difference being that in time of war it was with licence and pay of the State, and with the help of knights squires, that the pirates carried on their accustomed programme of incendiarism, massacres, and robberies.

¹ *Journal of the Royal Society*, p. 357.

² *Nichols*, vol. 344.

³ *Ibid.*, p. 405.

his connection, therefore, a lower character of warfare on the first on sea than on land, and the spirit of piracy over the waters. As little mercy as was shown by pirates to a captured or surrendered vessel, was shown in like manner to regular naval service of the country, for wounded and disabled alike were thrown into the sea. When the fleet of Castile defeated the English pirates in July 1403, and took them prisoners, they threw overboard the greater part of the crew. In the great sea-fight between the English and Spanish fleets in 1588, the whole of the crew of a Spanish ship that surrendered, the Earl of Lancaster were thrown overboard, "according to the barbarous custom of the age."²

Other stories of that time still further display the utter want of the like chivalrous feeling in maritime usages. A Flemish ship on her way to Scotland, having been driven by a storm on the coast, near the Thames, and its crew having been slain by assassins, the king rewarded the assassins with the whole of the cargo and kept the ship and the rigging for himself (1318).³ When a fleet of English knights, under Sir John Arundel, was on her way to Brittany, was overtaken by a storm, and the jettisoned cargo failed to relieve the vessels, sixty women, many of whom had been forced to embark, were thrown into the sea.⁴

The historical origin, therefore, of the navies of Europe sufficiently explains the fact that plunder, which is less the rule than an incident in land warfare, remains its chief object and feature at sea. The same may further be explained by the survival of piracy that was long common to the States under the guise of privateering. If we would explain the popularity of wars in England in the old privateering system, we must recall the magnificent fortunes which were often won in the career of legalised piracy. During the war concluded in 1748 by the treaty of Aix-la-Chapelle, the number of French and Spanish ships collectively captured

at the announcement of war, as they did at the declaration against Spain. War represented to large classes what the mines of Peru represented to Spain—the best of all possible primary speculations. In the year 1747 alone the English captured 644 prizes; and of what enormous value they often were a list of the values which the cargoes of these prizes not only reached:

That of the *Heron*, a French ship, £140,000.

That of the *Conception*, a French ship, £200,000.

That of *La Charmante*, a French East Indiaman, £

That of the *Vestal*, a Spanish ship, £140,000.

That of the *Hector*, a Spanish ship, £300,000.

That of the *Concordia*, a Spanish ship, £600,000.¹

Two Spanish register-ships are recorded to have brought to every foremast man who took part in their capture three Spanish vessels returning from Peru having been taken by three privateersmen, the owners of the latter received to their rate shares the sum of £700,000, and every common seaman. Another Spanish galleon was taken by a British man-of-war worth a million sterling in bullion on board.

These facts suffice to dispel the wonder we might otherwise have at the love our ancestors had for mixing themselves up, in text or for none, in hostilities with Continental powers. It was naturally spirited, when it meant chances like these, and it lacked either the wit or the will to live honestly, and to put these on the capital invested in the patriotic equipment of privateers. But what advantage ultimately accrued to the nation after deduction made for all losses and expenses, or how national piracies contributed to the speedier restoration of peace, questions that apparently did not enter within the range of the reasoning to consider.

Everything was done to make attractive a life of privateering in the service of the State. Originally every European state had some interest in the prizes it commissioned its privateers to capture; but the fact that each in turn surrendered its claim to the prize, and the difficulty there was in getting these piratical servants to deliver their plunder to the adjudication of the prize-courts. Our privateers were bound to deliver captured arms and ammunition to their sovereign, and to surrender a percentage of their gains to the State or the admiral; but it soon came to pass that the privateers had to pay for the arms they might wish to keep, and

¹ From Entick's *New Naval History* (1751), 801-817.

percentage deducted was first diminished and then abolished altogether. At first 30 per cent. was deducted in Holland, which successively to 18 per cent., to 10 per cent., to nothing; and in England the 10 per cent. originally due to the admiral was finally rendered.¹ The crew also enjoyed an additional prize of money for every person slain or captured on an enemy's man of war or privateer, and for every cannon in proportion to its bore.² •

Of all the changes of opinion that have occurred in the world's history, none is more instructive than that which gradually took place concerning privateering, and which ended in its final renunciation by most of the maritime powers in the Declaration of Paris in 1856.

The weight of the publicists' authority was for long in its favour. It not only made the proviso of a just cause of war the condition of reconciling privateering with the comfort of a good conscience,³ but also defended it as a patriotic service, in that it relieved the State from the expense of fitting out war-vessels. Emerigon denounced the vocation of pirates as infamous, while commending that of privateers as honest and even glorious. And for many generations the distinction between the two was held to be satisfactory, that the privateer acted under the commission of his sovereign, the pirate under no one's but his own.

Morally, this distinction of itself proved little. Take the story of the French general Crillon, who, when Henri III. proposed to him to assassinate the Duc de Guise, is said to have replied, "My life and my property are yours, Sire; but I should be unworthy of the French name were I false to the laws of honour." Had he accepted the commission, would the deed have been praiseworthy or infamous? Can a commission affect the moral quality of actions? The hangman has a commission, but neither honour nor distinction. Why, then, should a successful privateer have been often decorated with the title of nobility or presented with a sword by his king?⁴

Historically, the distinction had even less foundation. In olden times individuals carried on their own robberies or reprisals at their own risk; but their actions did not become the least less piratical when, about the thirteenth century, reprisals were taken under State control, and became only lawful under letters of marque duly issued by a sovereign or his admirals. In their acts, conduct, and whole procedure, the commissioned privateers of later times differed

¹ Martens, *Essai sur les Corsaires* (Horne's translation), 86, 87.

² *Ibid.* 93.

³ III. xv. 229.

⁴ Emerigon, *On Insurances* (translation), 442.

in no discernible respects from the pirates of the middle ages, in the fact of being utilised by the State for its support; and this difference, only dating as it did from the time of the prohibition to fit out cruisers in time of war without public authority, first became common, was evidently one of date rather than of nature.

Moreover, the attempt of the State to regulate privateering service failed utterly. In the fourteenth century it was common to make the officers of a privateer swear not to plunder the property of the commissioning belligerent, or of friendly powers, or to sail under safe-conducts; in the next century it became usual, in addition to this oath, to insist on heavy pecuniary sureties; such sureties became common stipulations in treaties. Nearly every treaty between the maritime powers after the sixteenth century contained stipulations in restraint of the abuses of privateering, on the value of which, the complaints that arose in every age of the occurrence of privateers exceeding their powers are to be found in comment. The numerous ordinances of different nations threatening to punish as pirates all privateers who went without commissions from *both* belligerents, gives us a still further proof into the character of those servants of the State.

In fact, so slight was the distinction founded on the possession of a commission, that even privateers with commissions were treated as actual pirates and not as legitimate belligerents. In the seventeenth century, the freebooters and buccaneers who preyed on the West Indies, and who consisted of the outcasts of England, France, and the Continent, though they were duly commissioned by France, did the utmost damage to the Spanish colonies and commerce. In the eighteenth century, the privateers of the West Indies, were treated as no better than pirates if they fell into the hands of the Spaniards. And especially was the distinction disallowed if there were any doubt concerning the validity of the letters of marque. England, for instance, refused to treat as better than pirates the privateers of her revolution in America; and in the French Revolution she tried to persuade the powers of Europe so to deal with privateers commissioned by the republican government. Russia having consented to the execution of the law, was only hindered by the honourable refusal of Prussia and Denmark to accede to so retrograde an innovation.

An illusory distinction between the prize of a pirate and that of a privateer was further sustained by the judicial apparatus

¹ Martens, 19.

² Hautfeuille, *Des Droits et Devoirs des Nations neutres*.

court. The rights of a captor were not complete till a naval tribunal of his own country had settled his claims to the ships or cargo of an enemy or neutral. By this device confiscation was divested of its violence to plunder, and a thin veneer of legality was laid on the fundamental lawlessness of the whole system. If it were left to the captives to decide on their rights to the captured sheep, the latter would have much the same chance of release as vessels in a prize-court of the captor. A prize-court has never yet been equally representative of either belligerent, or been so constituted as to be absolutely impartial between either.

But, even granted that a prize court gave its verdicts with the strictest regard to the evidence, of what nature was that evidence likely to be when it came chiefly from the purser on board the privateer, whose duty it was to draw up a verbal process of the circumstances of every visit or capture, and who, as he was paid and nominated by the captain of the privateer, was dependent for his profits on the concern on the lawfulness of the prizes? How easy to represent that a defenceless merchant vessel had offered resistance to search, and that therefore by the law of nations she and her cargo were lawful prize! How tempting to falsify every circumstance that really attended the capture, or that legally affected the captors' rights to their plunder!

These aspects of privateering soon led unbiassed minds to a sounder judgment about it than was discernible in received opinion. Molloy, an English writer, spoke of it, as long ago as 1769, as follows: "It were well they (the privateers) were restrained by the consent of all princes, since all good men account them but one remove from pirates, who without any respect to the cause, or having any injury done them, or so much as hired for the service, spoil men and goods, making even a trade and calling of it."¹ Martens, the German publicist, at the end of the same century, called privateering a privileged piracy; but Nelson's opinion may fairly count for more than all; and of his opinion there remains no doubt whatever. In a letter, dated August 7, 1804, he wrote: "If I had the least authority in controlling the privateers, whose conduct is so disgraceful to the British nation, I would instantly take their commissions from them." In the same letter he spoke of them as a horde of sanctioned robbers;² and on another occasion he wrote: "The conduct of all privateering is, as far as I have seen, so near piracy, that I only wonder any civilised nation can allow them. The lawful as well as the unlawful commerce of the neutral flag is subject

¹ *De Jure Maritimo*, i. 72.

² *Despatches*, vi, 145.

to every violation and spoliation."¹ Yet it was for the spoliation, which England chose to regard as her main and to identify with her maritime supremacy, that, under the influence of solicitude for the liberties of Europe, she fought her long war with France, and made herself the enemy in turn of nearly every civilised power in the world.

The Declaration of Paris, the first article of which prohibited privateering between the signatory powers, was signed by Lord Clarendon on behalf of England; but on the ground that it was not formally a treaty, never having been ratified by Parliament, the Crown, it has actually been several times proposed in the House of Commons for Parliament to violate the honour of England by declaring the agreement null and void.² Lord Derby, in reference to these proposals, said in 1867: "We have given a pledge, not only to the Powers who signed with us, but to the whole civilised world. This was the language of real patriotism, which esteems its own honour its highest interest; the other was the language of plainest perfidy. In November 1876, the Russian Government also strongly urged, in the case of war with England, to prohibit the use of marque against British commerce, in spite of the provisions of the agreement to the contrary."³ It is not likely that it would be so; but these motions in different countries give vitality to the history of privateering as one of the legitimate incidents of waging war.

Moreover, since neither Spain nor the United States have signed the Declaration of Paris, war with either of them would re-ignite the atrocities and disputes that have embittered previous wars in which England has been engaged. The precedent of former treaties, such as that between Sweden and the United Provinces in 1713, the United States and Prussia in 1785, and the United States and Great Britain in 1871, by which either party agreed in the event of war to employ privateers against each other, affords an obvious example of what diplomacy might yet do to diminish the chances of war between the signatory and the non-signatory powers.

The United States would have signed the Declaration of Paris if it had exempted the merchant vessels of belligerents as from ships of war as from privateers; and this must be looked upon as the next conquest of law over lawlessness. Russia and several other powers were ready to accept the American amendme-

¹ *Despatches*, vi. 79.

² The last occasion was on April 13, 1875.

³ Halleck, *International Law*, ii. 316.

of war to seize the property and ships of merchants.¹ In the
1866 Prussia, Italy, and Austria agreed to forego this time-
red right of mutual plunder; and the Emperor of Germany
voured to establish the same limitation in the war of 1870.
old maxim of war, of which the custom is a survival, has long
been disproved by political economy—the doctrine, namely,
loss to one country is a gain to another, or that one country
by the exact extent of the injury that it effects against the
ty of its adversary. Having lost its basis in reason, it only
ns to remove it from practice.

we turn from this aspect of naval warfare to the actual conduct
ilities at sea, the desire to obtain forcible possession of an
y's vessels must clearly have had a beneficial effect in diminish-
he loss of life, which was absent from battles on land. To
re a ship, it was desirable, if possible, to disable without
oying it; so that the fire of each was more generally directed
at the masts and rigging than against the hull or lower parts of
essel. In the case of the *Berwick*, an English 74-gun ship,
h struck her colours to the French frigate, the *Aleste*, only four
s were wounded, and the captain, whose head was taken off by
t-shot, was the only person slain; and "so small a loss was
uted to the high firing of the French, who, making sure of the
wick's capture, and wanting such a ship entire in their fleet, were
enough to do as little injury as possible to her hull."² The
battle between the English and Dutch fleets off Camperdown

shot."¹ As the English naturally retaliated, though "an appearance of the Dutch prizes was gratifying," as ships were not the slightest acquisition to the navy of England.

When this happened, as it could not but often do in battles, the Government sometimes made good to the value of the prizes that the serious nature of the conflict them to lose. Thus in the case of the six French prizes battle of the Nile, only three of which ever reached the Government, "in order that the captors might not show prowess they had displayed in riddling the hulls of the captives," the Government paid for each of the destroyed 74s, the *Guerrier*, *Le Mercure* the sum of £20,000, which was as much as the value of the remaining 74s had been valued at.³

It is curious to notice distinctions in naval warfare between lawful and unlawful methods, similar to those conspicuous on land, such as the use of projectiles as bits of iron ore, pointed stones, nails, &c. are excluded from the list of things that may be used in war, and the declaration of St. Petersburg condemns explosions as much on one element as on the other. Unfounded charges of belligerence against another are, however, always liable to be turned into an illicit method into actual use on both sides under the pretext of reprisals; as we see in the following order of the day, issued by the French vice-admiral Marshal Conflans (Nov. 8, 1794), absolutely contrary to the law of nations to make bad worse, to shoot shells at the enemy, who must always be fought on the rules of honour, with the arms generally employed by the nations. Yet some captains have complained that the French used such weapons against them. It is, therefore, only in answer to complaints, and with an extreme reluctance, that it has been permitted to embark hollow shells on vessels of the line, but it is expressly forbidden to use them unless the enemy begin."⁴

So the English in their turn charged the French with a bad war. The wound received by Nelson, at Aboukir, in 1798, in the head, was attributed to a piece of iron or a langridge shot. The wounds that the crew of the *Brunswick* received at the battle of the *Vengeur* in the famous battle between the French and English in June 1794, are said to have been peculiarly distressing, the French employing langridge shot of raw ore and old shot, and to their throwing stinkpots into the portholes, which caused

¹ James, ii. 71.

² *Ibid.* ii. 77.

³ *Ibid.* ii.

⁴ Ortolan, *Diplomatic de la Mer*

⁵ Campbell's Admirals, viii. 40.

burnings and scaldings.¹ It is safest to discredit such ones altogether, for there is no limit to the barbarities that may be put into play, in consequence of too ready a credulity.

Red-hot shot, legitimate for the defence of land forts against sea-pirates, is not to be considered good war in the contests of ships with one another. In the three hours' action between the *Swallow* and the *Tourterelle*, a French privateer, the use by the latter of red-hot shot, "not usually deemed honourable warfare," was considered wrong, but a wrong on the part of those who equipped her for sea rather than on the part of the captain who fired them.² The English assaulting batteries that fired red-hot shot against Gluckstadt, in 1757, are said to have resorted to "a mode of warfare very unusual since the siege of Gibraltar."³

The "Treatise on Tactics," by the Emperor Leo VI., carries the record of the means employed against an enemy in naval warfare to the ninth century. The things he recommends as most effective are: cranes, to let fall heavy weights on the enemy's decks; catapults, with iron spikes, to wound his feet;⁴ jars full of quicklime, to scald him; jars containing combustibles, to burn him; jars containing poisonous reptiles, to bite him; and Greek fire, with its rattle like thunder, to frighten as well as burn him.⁵ Many of these means were of immemorial usage; for Scipio knew the merits of the use of pitch, and Hannibal of jars full of vipers.⁶ Nothing was known for use in those days; nor can it be ascertained when or by whom they ceased to be used. Greek fire was used with great effect in the battles between the Saracens and Christians; but it is a fair subject of wonder that the invention of gunpowder should have so completely superseded it as to cause its very manufacture to have been forgotten. Neither does history record the date of, nor the reason for, the disuse of quicklime, which in the famous fight off Dover in 1595, between the French and English contributed so greatly to the success of the latter.⁷

¹ Campbell, vii. 21. James, i. 161. Stinkpots are jars or shells charged with sulphur, grenades, &c.

² James, i. 283. ³ Brenton, ii. 471.

⁴ Catapults, or crows-feet, were bits of iron with four spikes so arranged that when they fell one spike always remained upwards.

⁵ Chapter xix. of the *Tactica*.

⁶ Frontinus, *Strategematicon*, iv. vii. 9, 10. 'Amphoras pice et tæda plenas; una viperis plena.'

⁷ Roger de Wendover, *Chronica*. 'Calcem vivam, et in pulverem subtilem sulphuris, in altum projicientes, vento illam ferente, Francorum oculos excæcavit.'

It is difficult to believe that sentiments of humanity should have caused these methods to be discarded from maritime hostility; but that such motives led to a certain mitigation in the use of fire-ships appears from a passage in Captain Brenton's "Naval History," where he says: "The use of fire-ships has long been laid aside as dishonouring to the nation which first dispensed with this barbarous aggravation of the horrors of war." That is to say, as he explains it, though fire-ships continued to accompany the fleets, they were only used in an anchorage where there was a fair chance of the escape of the crew against which they were sent; they ceased to be used, as at one time, to burn or blow up disabled ships, which the conqueror dared not board and carry into port, and which were covered with the wounded and dying. The last instance in which they were so used by the English was in the fight off Toulon in 1744; and their use on that occasion is said to have received its deserved reprobation from the historian of the day.¹

As the service of a fire-ship was one that required the greatest bravery and coolness—since it was, of course, attacked in every possible way, and it was often difficult to escape by the boat which lay behind it—it displays the extraordinary inconsistency of opinion about such matters, that it should have been accounted rather a service of infamy than of honour. Molloy, in 1769, wrote of the practice of his day to put to death prisoners made from a ship: "Generally the persons found in them are put to death." And another writer says: "Whether it be from a mistaken idea, or from the most determined resentment towards those who act in fire-ships, may be difficult to judge; but there is rarely a quarter given to such as fall into the enemy's power."²

Clock-machines, or torpedoes, were introduced into European warfare by the English, being intended to destroy Napoleon's fleet at Boulogne in 1804. It is remarkable that the use of them was first reprobated by Captain Brenton, and by Lord St. Vincent; but he foresaw that other Powers would in turn adopt the innovation. The French, who picked up some of them near Boulogne, called them infernal machines. But at present they seem firmly established as a part of good warfare, in default of any international agreement against them, such as that which exists against explosive bullets.

The same International Act which abolished privateering between the signatory Powers settled also between them two other disputed points which for centuries were a frequent cause of war and jealousy.

¹ Brenton, i. 635.

² *De Jure Maritimo*, i. 265.

³ Rees' *Cyclopædia*. "Fireship."

⁴ Brenton, ii. 493, 494.

ely, the liability of the property of neutrals to be seized when found in the ships of an enemy, and of the property of an enemy to be seized when found in the ships of a neutral.

Over the abstract right of belligerents so to deal with the ships and property of neutral powers the publicists for long fought a battle, contending either that a neutral ship should be regarded as neutral territory, or that an enemy's property was lawful prize anywhere. Whilst the French theory regarded the nationality of the vessel rather than of its cargo, so that the goods of a neutral might be fairly seized on an enemy's vessel, but those of an enemy were not even in a neutral ship; the English theory was diametrically opposite, for the Admiralty restored a neutral's property taken on an enemy's vessel, but confiscated an enemy's goods if found on a neutral vessel. This difference between the English rule and that of other countries was a source of endless contention. Frederick II. of Prussia, in 1753, first resisted the English claim to seize hostile property sailing under a neutral flag. Then came against the same claim the first armed neutrality of 1780, headed by Russia, and again in 1801 the second armed coalition of the Northern Powers. The divergence of rule was, therefore, as such differences always must be, a source of real weakness to England, on account of the enemies it invited against her all over the world. Yet the Continental theory of ships making free goods was considered for generations to be so adverse to the real interests of England, that Lord Nelson, in 1801, characterised it in the House of Lords as "a proposition so monstrous in itself, so contrary to the law of nations, and so injurious to the maritime interests of England, as to justify war with the advocates of such a doctrine, so long as a single man, a single shilling, or a single drop of blood remained in the country."¹

The fact, therefore, that if England were now at war with France she could not take French property (unless it were contraband) from a Russian or American ship, we owe not to the publicists who were divided about it, nor to naval opinion which was decided against it, but to the accidental alliance between France and England in the Crimean war. In order to co-operate together, each waived its old claim, according to which France would have been free to seize the property of a neutral found on Russian vessels, and England to seize Russian property on the vessels of a neutral. As the United States would probably have resisted by arms the claim of either so to interfere with this neutrality, the mutual concession was one of common prudence; and as the same opposition would have been perennial,

¹ Halleck, ii. 317.

it was no great sacrifice on the part of either to perpetuate and extend by a treaty at the close of the war the agreement that at first was only to last for its continuance.

Much, however, as that treaty has done for the peace of the world, by assimilating in these respects the maritime law of nations, it has left many customs unchanged to challenge still the attention of reformers. It is therefore of some practical interest to consider of what nature future changes should be, inasmuch as, if we cannot agree to cease from fighting altogether, the next best thing we can do is to reduce the pretexts for it to as few as possible.

The reservation, then, in favour of confiscating property that is contraband of war has left the right of visiting and searching neutral or hostile merchantmen for contraband untouched; though nothing has been a more fruitful source of quarrel than the want of a common definition of what constitutes contraband. Anything which, without further manipulation, adds directly to an enemy's power, as weapons of war, are contraband by universal admission; but whether commodities and provisions are, as some text-writers assert and others deny, whether coined money, horses, or saddles are, as was decided in 1864 between the Northern Powers of Europe; whether tar and pitch for ships are, as was disputed between England and Sweden for several years; or whether coal should be, as Prince Bismarck claimed against England in 1870;—these are questions that remain absolutely undecided, or left to the treaties between the several Powers or the arbitrary caprice of belligerents.

The Declaration of Paris was equally silent as to the right, contended for by all the Powers save England, for ships of war, which have always been exempt from the right of search, to exempt from it also the merchant vessels sailing under their convoy. So fundamental a divergence between the maritime usages of different countries can only be sustained under the peril of incurring hostilities and war, without any corresponding advantage in compensation.

The Declaration of Paris has also left untouched the old usage of embargoes. A nation wronged by another may still seize the vessels of that other which may be in its ports, in order to secure attention to its claims; restoring them in the event of a peaceable settlement, but confiscating them if war ensues. The resemblance of this practice of hostile embargo to robbery, "occurring as it does in the midst of peace . . . ought," says an American jurist, "to make it disgraceful and drive it into disuse."¹ It would be as reasonable to seize the persons and property of all the merchants resident in the country, as used to be done by France and England. In 1791

¹ Woolsey, *International Law*, 187.

Holland, having been conquered by France, became thereby an enemy of England. Accordingly, "orders were issued to seize all Dutch vessels in British ports;" in virtue of which, several gun-ships and between fifty and sixty merchant vessels in Plymouth Sound were detained by the port admiral.¹ It is difficult to conceive anything less defensible as a practice between civilised states.

It equally descends from the barbarous origin of maritime law that all ships of an enemy wrecked on our coast, or forced to take refuge in our harbours by stress of weather or want of provisions, or in ignorance of the existence of hostilities, should become ours by right of war. There are generous instances to the contrary. The Spanish Governor of Havana in 1746, when an English vessel was driven into that hostile port by stress of weather, refused to seize the vessel and take the captain prisoner; and so did another Spanish governor in the case of an English vessel whose captain was ignorant that Honduras was hostile territory. But these cases are the exception; the rule being, that a hostile Power avails itself of a captain's ignorance or distress to make him a prisoner and his ship a prize of war; another proof, if further needed, how very little magnanimity really enters into the conduct of hostilities.

It is a still further abuse of the rights of war that a belligerent State may do what it pleases, not only with all the vessels of its own subjects, but with all those of neutrals as well which happen to be within its jurisdiction at the beginning of a war; that it may, on paying the owners the value of their freight beforehand, confiscate such vessels and compel them to serve in the transport of its troops or its munitions of war. Yet this is the so-called *jus angariae*, to which Prince Bismarck appealed when in the war with France the Germans sank some British vessels at the mouth of the Seine.²

If, then, from the preceding retrospect it appears that whatever advance we have made in the maritime usages of our ancestors has been due solely to international agreement, and to a friendly concert between the chief Powers of the world, acting with a view to their permanent and collective interests, the inference is evidently in favour of any further advance being only possible in the same way. The renunciations of each Power redound to the benefit of each and all; nor can the gain of the world involve any real loss for the several nations that compose it. We shall therefore, perhaps, not err far from the truth, if we imagine the following articles, in complement of those formulated in Paris in 1856, to constitute the International Marine Code which will be found in the future to be most

¹ James, i. 277.

² Phillimore, *International Law*, iii. 50-52.



~~CONFIDENTIAL~~

~~... of the ... and ...~~

~~... shall be ...~~

~~... intelligence ...~~

~~... such ...~~

~~... blockade ...~~

~~... ships of a friendly ...~~

~~... destroy the ships of a friendly Power ...~~

~~... sail under false ...~~

~~... use torpedoes ...~~

What, then, would remain for the naval forces of maritime Power to do? Everything, it may be replied, which constitutes legitimate warfare, and conforms to the elementary conception of a state of hostility, the blockading of hostile ports, and all the play of attack and defence that may be imagined between belligerent navies. Whatsoever is more than this—the plunder of an enemy's commerce, embargoes on his ships, the search of neutral vessels—only cometh of piracy, as has been shown, but is in fact piracy in itself without any necessary connection with the conduct of legitimate hostilities.

BOOKS AND THEIR AUTHORS.

THE debt of gratitude which mankind at large owes to books has been so often acknowledged, that the words begotten of not devotion are now the commonplaces of our most ordinary thoughts. We are scarce conscious of using a metaphor, when we speak of our books as friends, and of their perusal as converse. If our debt to them is infinite, our payments are habitual and incessant. In our every thought of books there is a thanksgiving.

But while books thus lay all the world under a cheerfully paid tribute of praise, there is one class whose members are twice their debtors. These last, while, like their brethren, they owe to books the daily bread of their intellectual life, derive from them also a second existence—a serene and shadowy immortality, which seems almost to fulfil the old pagan fable of an astral apotheosis. The authors of books are also their children. Or say, rather, that in their fate the hopes of the Buddhist are realised, and that the "brooding spirit of wisdom and of love" which lighted the days of their mortality has now absorbed them into its own divine essence. Whatever their actual doom may be, for us they are books. Shakespeare's ghost has donned immortal calfskin. Petrarch is a great octavo. Horace, in spite of Dante, has escaped from the sighings and shadows of that milder Inferno, and reposes in snug-bound ease within the volumed Elysium of our bookcase.

Such is the mighty debt which authors owe to books—an endless existence in the purest thoughts of men, an everlasting rest in the sunshine of their most grateful memories. We purpose in this paper to see in some small measure how they have attempted to repay that debt—how they have honoured and loved those bestowers of immortality.

We do not find expressed in ancient literature such a reverence for books as is continually overflowing in fervent praise from the mouths of modern authors. Leigh Hunt gives a humorous reason for this, when he says that the form of an ancient library was uncongenial to the growth of those affections which so readily entwine themselves around *our so-called volumes*. But the real cause, we

think, lay much deeper. The two great peoples of antiquity were from the bent of their minds, users rather than lovers of books. Of the Greeks especially is this true. With all their poetry and refinement, the Athenians were a wonderfully business-like race. Plato's "Republic" (which, after all, is only the ideal of the *πύλας*), we find expressed a utilitarianism of at once the strictest and the broadest kind. Nothing is admitted which is not useful, and scarce any is left out of sight. We can quite well understand how a people with notions like this, though they valued their books, could yet hardly be said to love them. They read them, enjoyed them, profited by them—and then put them by. Worship them they never did. Like the bees of their own Hymettus, they gathered the honey, but they were not of cherishing the flower.

It is a significant fact, that that part of the literature of Greece which was produced after the fall of her national life smacks more of the study than do the great works which were the offspring of her prime. Plutarch and Lucian are emphatically bookish authors. The former how the former revels in talk of hoarded volumes, and libraries whose porches the *learned* assemble. And even where these writers have nothing articulate to say about books, we can always see that their reading has been that of the loving student.

We are more at home among the Roman authors, who have not that lofty pride of genius which disdains a pleasure sucked from the sweet husk of learning. Virgil, in the "Georgics," speaks of vegetating at Naples in all the laziness of study. Horace, in his *epicurean* sighed wishes for rural ease and calm, seldom omits a prayer for books.

O rus, quando ego te adspiciam? quandoque licebit,
Nunc veterum libris, nunc somno et inertibus horis
Ducere sollicitae jucunda obliviam vitae?

and again,

Sit bona librorum: et provisae frugis in annum
Copia, neu fluitem dubiae spe pendulus horae!

Horace in his library! what a picture that would be! Say on some winter evening when, without, Soracte glimmered white under the southern moon, and indoors the heaped-up logs cracked briskly on the hearth. We can fancy him there, luxuriously reclined on a cot with a roll of Alceus or Sappho in his hand, and a flask of Falernian beside him.

Catullus, too, was evidently a book-lover. In the elegy addressed to Manius Allius he laments that most of his volumes are left at Rome and that he has brought with him only one case out of the many which he possesses. Be sure that there was a snug little *bibliotheca* in the *villa* at Sirmio, and that the pinnace which "flashed along the Ligeia

then it did not bear some laughing Lesbia, had a corner where his papyrus might be stowed.

Caecina knew the charms of books, and the Plinies, uncle and

The Elder Pliny was used to say that he had never found one out of which he did not get good, and the Laurentine villa of Pliny the Younger, with its "bookcase for such works as can never be worn out," shows like a green islet amid the black fen of later life. But Cicero was the great bibliomaniac of antiquity. He knows the famous passage in the oration "Pro Archia" of the delights of study. 'Tis a noble scene—the great orator pleading the cause of his beloved learning at the bar of the ages.

It was his genius alone that Cicero devoted to the service of his country. Many a hoarded sesterce went to increase his store of books, for, rich man though he was, he was always saving to add to his library. In his letters he more than once entreats his friend Atticus not to part with his collection until he (Cicero) has laid by enough money to purchase it. The hours which others gave to business, to the law, and even to sleep, he spent in reading. His books were the soul of his home. "Since Tyrannus has arranged them," he writes, "a new spirit seems to animate my house." Nor was his attachment to books any the less. We find him feeding on Faustus' collection at the house of Cato, devouring books with Dionysius, sitting with Cato among the friends of the young Lucullus. How he would revel in the Museum or the dusty cloisters of Oxford! But we fear that the loss of so many of his own works (notably of that treatise "On the Old Man") would sadly distress him.

The dark ages of mediæval history are interesting to modern students chiefly for the slender streak of light which runs through them from studious convent to convent. It must have been no small matter to be a lover of books in those days, when the pleasure of a learned life was enhanced by the difficulty of obtaining books and the sense of superiority—when the academical life of Oxford consisted of a few tracts, and the collection at Merton Abbey numbered only 400 volumes. For a deep enjoyment of the sweets of the *bibliomanie*, give us a few precious books, and set us in the "dim religious light" of the cloister, far from a limitless brawling world by the quiet of hoary walls and the peaceful garden greenery. It was such a life that inspired Chaucer to write his panegyric on books. This old worthy, who must have been a kind of *édition de luxe* of Chaucer's "Clerk of Oxenford," gave the Abbot of St. Albans fifty pounds-weight of books for some thirty volumes. His "Philobiblon" contains nigh

every imaginable word that can be said in praise of his subject, subdivided into heads in the right clerical style. Here is the enthusiastic laudation he lavishes on his subject :—

How great is the wonderful power arising from books ! for by not only the ends of the world, but of time ; and we contemplate things that are and things that are not, as in a sort of mirror of eternity. . . . we ascend mountains and fathom the depths of the abyss ; we behold fishes which the common atmosphere can by no means contain in its bosom ; we distinguish the peculiarities of rivers and springs, and different climates ; . . . we transcend the kingdoms of Jove, and with li-
 passes measure the territories of the seven planets, and at last survey the firmament itself, decorated with signs, degrees, and configurations of variety.

The period which abolished this monkish monopoly was, perhaps, of all ages, the one fraught with greatest glory. In no other epoch has erudition been such a power in the world, so greedily coveted, or so flatteringly recognised. A scholar would give anything for learning, and learning oft did more for him. Petrarch and Boccaccio, the pioneers of the *renaissance*, were unwearied book-hunters. If the form of all his genius, cuts rather a sorry figure as the lover of books, we can feel nothing but respect for him as the student and lover of ancient learning. We find him, in a letter to a Florentine friend, accounting for a four years' detention of a volume of Cicero, stating that, for want of a competent copyist, he has transcribed it himself. His end was worthy of him, for he was found with his books. And in the Italy of his own and the three succeeding generations, he had numerous disciples—me-
 old Bardi in "Romola," passed secluded days in a cell of antique, and echoed with fervour their master's Ciceroni "Libri medullitus delectant, colloquuntur, consulunt, et vobis atque arguta familiaritate junguntur."

The invention of printing, by the multiplication and diffusion of books, increased to an incalculable degree the number of a scholar's enjoyment. Volumes that formerly could not be obtained, or obtained only at an extravagant cost, were comparatively within the reach of the multitude. A catalogue, dated some time in the early years of the sixteenth century, gives some interesting details of prices. A Government is marked at 12 sous, a folio Latin Bible at 100 sous, and a book at 2 sous 6 deniers. It is little wonder, in these circumstances, that the love of books begins to find frequent expression in literature. Erasmus was the arch-bookworm of those days. From

as a needy student, he denied himself food and clothes to procure some coveted volume, to the calm of his later days at Basle, may be said, without much of a metaphor, to have lived on books.

Rabelais' collection must have been a singularly characteristic one, for it contained all the naughty books of the day, *tous les mauvais livres*, which the good *curé* was always on the watch to suppress, lest they should not be reprinted. Montaigne's library has been described for us by its owner—a round upper chamber, warm and well-lighted, encircled with five well-filled shelves, and commanding a view of garden, court, and wide-stretching champaign. The immortal egotist lounged his days away over Plutarch and Cicero. Cervantes must have been fond of books, else he could not have written the description of Don Quixote's library. Besides, we have his own word for it, where he tells of his purchase of the *Cid* Hamet's manuscript. There is the right odour of the book about that passage. Calderon, too, was of the brotherhood, as is his picture of the student Cyprian sitting with his folios among the groves "of Daphne, by Orontes"—

In the sweet solitude of this retreat,
With labyrinthine greenery enwove,
Leave me, and by my side, for that in them
Enough of company I ever find,
The books thou brought'st me.

Spain of those days, with its vast libraries, sealed with the seals of churlish officialism, must have been, after all, a sadly uninviting place for a bookworm. The great Mariana indignantly complains of the exclusiveness with which the national collections were devoted to royal neglect.

To pass to our own authors. We are all familiar with Chaucer's selfishness, and with the verses which tell how he left his office in the evening only to sit down "at another booke," and how his studies brooked no interruption but the songs of the birds in May.

Spenser, too, must have been in a way fond of books, though there is nothing to say about them; but we do not conceive of him as a student like Chaucer—his soul was too often taking flight through the forest-wood. His friend, Sir Philip Sidney, seems to have been more of a bookman, and doubtless was often to be found, when the court was in the camp could spare him, reading the poets on the lawn at the castle. There is a flavour of elegant erudition about the *Apology for Poetrie*; every page bristles with those proper names and allusions which announce the approach of some old friend. Lyly, too, though he could scarce carry his learning with becoming modesty,

was evidently a close student. "Far more seemly were he says, "to have thy study full of books than thy money." Sir Walter Raleigh, like Sidney, was a man well as of action, and has left us, in the preface to *Life of the World*," a panegyric on books which, in its quiet tone, suits well the character of its author and the circumstances of its composition.

It is a significant fact, and one greatly to the credit of these writers of the Elizabethan era are at once among the most natural and also the most literary of our authors. The most of them are bathed in a delightful outdoor atmosphere, breathe at the same time a scarcely less pleasing odour of a library. It is true that we must except from this class the greatest of them all. Shakespeare's works are not only passages in praise of books, but they have not that air of an author given to study. Doubtless we cannot fail to find in them that Shakespeare was a well-read man—nay, we find that he was fond of *reading*—but there is nothing to show that he was fond of his *books*, which is a very different thing. It is clear that he was learned far above books, and so could not be expected to pay much reverence to those gods of lesser men, whose works were only tools.

His brother dramatists, far inferior to him in every respect, that very cause more apt for citation here. Not a few of the living playwrights carried up with them from the quiet of Oxford or Cambridge a fondness for learning which, amid the bustle of the "Mermaid" and the bustle of the "Globe," they forgot. There is a snatch of the haughty scholasticism of the College about all that Marlowe wrote—

Learning, in despite of Fate,
Will mount aloft, and enter heaven gate,
And to the seat of Jove itself advance.

If anyone wishes to see how magnificently satanic for knowledge may become, let him read the first act of "The Proud Man." The proudest flights of learning can go no farther: it is as if with Jupiter for the thunderbolts. We need only to read Jonson in order to call up before our readers a vision of ponderous erudition humanised by wit-combats and flags of truce. Scholarship sits like a graceful coronet among the flowers that encircle the "kindred brows" of Beaumont and Jonson. There are few finer or better-known apologies for book

wherein Charles "the elder brother" defends his choice of a quiet life. Less familiar, but nearly as good, if we could but get that Aplotes, the scholar, is but a revengeful courtier in disguise, are the following lines from Ford's "Broken Heart." Aplotes, speaking of students, says,—

Happy creatures !

Such people toil not, sweet, in heats of state,
Nor sink in thaws of greatness ; their affections
Keep order with the limits of their modesty :
Their love is love of virtue.—What's thy name ?

Orgilus. Aplotes, sumptuous master, a poor wretch.

Euphranea. Dost thou want anything ?

Orgilus. Books, Venus, books.

It would hardly be possible to find a better description of the ideal scholar, who seems often to have sunk his manhood in his

study. Daniel, Drayton, and Chapman are notable among the bookish men of this period : the first of them wrote a whole poem to the superiority of a studious to an active life. Bacon, who valued all knowledge to be his province, was of course a lover of books ; his periods in their praise are as grand as Cicero's :—

The invention of the ship was thought so noble, which carrieth riches and commodities from place to place, and consociateth the most remote regions by the transportation of their fruits, how much more are letters to be magnified, which pass through the vast seas of time, and make ages so distant to the eye as if they were of the wisdom, illuminations, and inventions, the one of the other.

Robert Burton, whose life was passed among the libraries of the world, has left us a most curious and characteristic panegyric on books, some half-dozen pages in length, and stuffed with a mass of quotations from the learned obscure. While reading it, one seems in a college library of the sixteenth century, where the dust lies thick, and where the books are all in Latin, and the authors' names defy pronunciation. Sir Thomas Browne is not so much like him, but over the door of *his* study there is a skull. Richard Hooker had a better eye for a folio than for a wife. Walton tells a pretty story of him : " In this time of his life," he says, " and not many days before his death, his house was robbed ; of which he having notice, his question was, ' Are my books and written papers safe ? ' And being answered that they were, his reply was, ' Then it matters not, for no other loss can be done me.' "

They had three loves—poetry, the country, and his books ;

and it is pleasant to think that the last did not deceive; the coveted solitude of Chertsey proved gall and wormwood; the "Davideis" and the "Odes" have gone the way of the wind; but such delightful pieces of prose as that which tells of the reading of "Spenser" from a copy that lay in his mother's chest, to keep his name green for ever. For Butler, there is a well-remembered passage buried in "Hudibras," and if further proof were wanted that its author was a student, it might be found in the "Selden" which Selden conceived for him. What delight Milton had in the shade among the trees at Horton! what solace in the darkening room! and how nobly he has repaid them in that great burst of eloquence in the "Areopagitica," whence the periods, chord-like, go echoing on through the endless ages.

The wits of the Restoration were, we fear, no true book-lovers; they had cleverness enough to use their libraries to some purpose, but not sufficient solidity to revere them. Like the Duke of Devonshire and the Duke of Hamilton, they were ready at any time to prefer a pimp to a poet. Dryden has nothing to say in praise of books. Davensant, who might have been more of a student, at least if we may judge by the long and somewhat cumbrous allegory of learning which forms the second book of his "Gondibert." But we must not forget our old friend Pepys, who added to the endless list of his admirers the office of being a collector and frequenter of bookstalls. The "Diary" many such passages as this:—

Hither come Mr. Battersby; and we falling into discourse of a drollery in use, called Hudebras, I would needs go find it out, and the Temple: cost me 2s. 6d.

We quote no farther, in tenderness to the shade of the bibliomaniac. Far be it from us to expose the error of his

Pope must have enjoyed his library; we never hear of his name without thinking of the years he spent in his father's study at Brinfield, devouring the poets. There is a pleasant recollection in one of his letters, where he tells of visiting Oxford, and of the most ancient dusky parts of the university, "the bookshelves." Swift was a "scholar, and a ripe and good scholar." Addison, though his learning was of a somewhat conventional kind, took care to make Mr. Spectator say a good word for him. The student among the street scenes of London, has not forgotten to mention the stall where

Bending shelves with ponderous scholiasts groan,
And deep divines, to modern shops unknown:

Where sauntering 'prentices o'er Otway weep,
O'er Congreve smile, or over Durfy sleep ;
Pleas'd sempstresses the Lock's famed Rape unfold,
And squirts read Garth, till apozems grow cold.

is to a book that Prior owed his fortunes. "He had been taken, says Burnet, "out of a tavern by the Earl of Dorset, who mentally found him reading Horace, and he, being very pious, gave him an education in literature." In one of his poems, entitled "The Secretary," Prior describes himself, at the time, driving out of a Saturday night, with his Horace on one side and a nymph on the other, while the gaping countryfolks allow

That, search all the province, you'll find no man dar is
So blest as the Englishen Heer Secretaris.

How much of this happiness was due to the Horace and how much to the nymph, we will not venture to inquire.

Gray was notoriously a bookworm, so much so, indeed, that our studies have doubtless been materially diminished by his devotion to his own. He preferred lying on a couch and devouring eternal novels of Marivaux and Crébillon, to the toil of poetic composition.

He could seldom be enticed from his retreat in Pembroke College, where he lay fenced round with the Greek poets and philosophers. When he did venture up to London, it was generally to bury himself near the British Museum, whose "manuscripts and volumes by the cart-load" made ample amends for the annoyances of city life. Thomson must have been something like him, for he was of the right bookish temperament—fat, luxurious, and lazy. And a countryman of Thomson, too—Allan Ramsay—was not only a baker and merchant of books, but a lover of them—

A book he brings —

"Wi' this," quoth he, "on braes I crack wi' kings."

It would be unpardonable, in an article of this kind, to omit a reference to Dr. Johnson and his circle, who were as fond of good books as they were of late suppers and flowing talk. The great doctor, of course, overtopped them all. "Sir," he said, "the foundation of knowledge must be laid by reading." He was fond of old black-letter volumes, and of looking at the backs of books; and Burton's "Anatomy of Melancholy" could get him out of bed an hour sooner than he wished to rise. There is no mistaking books like these; they are the marks of what Leigh Hunt calls a true hand." Boswell was a not unworthy disciple of his master, and poor Goldsmith liked to have books about him when his

thriftlessness would let him buy them. Gibbon was a giant among bookish men—a library in himself, bound in the costliest materials and gorgeously gilded. "My invincible love of reading," he said, "I would not exchange for the treasures of India."

We would fain end here, with the last romantic age of English literature; but in the century which has since elapsed, there have been so many eloquent lovers of books, that we are tempted to prolong our paper yet a little. We cannot pass without mentioning Coleridge, whose life was spent between the two worlds of books and dreams; or Wordsworth, who has glorified those worlds with the magic of his sonnet-verse; still less of De Quincey, the vivid Montaigne of these later days. What lover of literature has not often seen in his mind's eye the library of the English Opium-

Paint me a room seventeen feet by twelve, and not more than seven feet high. . . . Make it populous with books; and, furthermore, paint a good fire; and furniture plain and modest, befitting the unpretending of a scholar.

Hazlitt's bookroom, in the cottage on Salisbury Plain, with its shadowy tenants, ruffed and peak-bearded, is another well-known scene. We are acquainted with every nook of the little back parlour at Bloomsbury, where Charles Lamb's quaint collection is preserved. We know the shelf where "Browne on Urn Burial" should rest, and the corner that holds old Raymund Lully. The folio of the factious Duchess is familiar to us, and the stately back of Lord Brooke even now before our eyes. Leigh Hunt's Italian study is another delightful haunt—there is a glimpse of waving green through the half-opened casement, and the southern sunlight steals airily in to illumine Theocritus, and Spenser, and the gay "Arabian Nights."

We will close this paper with a glance at Sir Walter Scott, undoubtedly the most illustrious bibliomaniac of modern times. If we did not know from Lockhart's biography of him how enthusiastic a collector he was—if Abbotsford, with its "rowth of nicknackets," were not yet standing to remind us, the description of the Antiquary's library would be a sufficient proof of his tastes. It is in vain that Scott affects to laugh at the good mania—he lets drop the mask and becomes enthusiastic in the midst of his satire:—

See this bundle of ballads, not one of them later than 1700, and some of them an hundred years older. I wheedled an old woman out of these, who valued them better than her psalm-book. Tobacco, sir, snuff, and the Complete Guide were the equivalent! For that mutilated copy of the "Complaynt of Scotland" that got out the drinking of two dozen bottles of strong ale with the late

lor, who in gratitude bequeathed it to me by his last will. These little
s are the memoranda and trophies of many a walk by night and morning
i the Cowgate, the Canongate, the Bow, Saint Mary's Wynd,—wherever,
there were to be found brokers and trokers, those miscellaneous dealers
gs rare and curious.

himself! you exclaim—and you are right.

he authors we have quoted all speak in praise of books. On
her side of the question, there is but one formidable saying that
n recollect. Solomon grumbled that “of making many books
was no end.” The best comment on this text is that pithy one
hop Hall's—“It were pity there should.”

ROBERT AITKEN.

SCIENCE NOTES.**THE UTILITY OF DRUNKENNESS.**

IN the early argumentative struggles between the advocates of total abstinence from alcohol and their opponents, the latter believed they settled the question by affirming that "these things are sent for our use," and therefore that it was flying in the face of Providence to refuse a social glass. This and many similar arguments have subsequently been overturned by the abstainers, who have unquestionably been victorious "all along the line," especially since Dr. B. W. Richardson has become their Commander-in-Chief.

In spite of this, I am about to charge their serried ranks arm with an entirely new weapon forged by myself from material supplied by the late Dr. Darwin, my thesis being that the drunkenness which prevails at the present day is promoting civilisation and the general forward progress of the human race.

Malthus demonstrated long ago that man, like other animals, has a tendency to multiply more rapidly than the means of supporting his increasing numbers can be multiplied; he and his followers regarded this tendency as the primary source of poverty and social degradation. Darwin, starting with the same general law, deduces the opposite conclusion respecting its influence on each particular species, though his antagonism to Malthus does not prominently appear, seeing that his inferences were mainly applied to the lower animals. Darwin shows that the onward progress, the development or what may be described as the collective prosperity of the species is brought about by over-multiplication, followed by a necessary struggle for existence, in the course of which the inferior or unsuitable individuals are weeded out, and "the survival of the fittest" necessarily follows; these superior or more suitable specimens transmit more or less of their advantages to their offspring, which multiplying excessively are again and again similarly sifted and improved or developed in a boundless course of forward evolution.

In the earlier stages of human existence, the fittest for survival were those whose brutal or physical energies best enabled them

gle with the physical difficulties of their surroundings, to negate the crudities of the primæval plains and forests to human firements. The perpetual struggles of the different tribes gave dominion of the earth to those best able to rule it ; the strongest and most violent human animal was then the fittest, and he survived accordingly.

Then came another era of human effort gradually culminating in the present period. In this, mere muscular strength, brute physical power, and mere animal energy have become less and less demanded. We have, by the aid of physical science, imprisoned the physical forces of nature in our steam boilers, batteries, &c., and have made them our slaves in lieu of human prisoners of war. The coarse muscular, raving, yelling, fighting human animal that formerly led the dance, the hunt, and the battle, is no longer the fittest for survival, but is, on the contrary, daily becoming more and more out of use. His prize-fights, his dog-fights, his cock-pits, and bull-baiting are practically abolished, his fox-hunting and bird-shooting are only carried on at great expense by a wealthy residuum, and by damaging interference with civilised agriculture. The unfitness of the remaining representatives of the primæval savage is manifest, and their survival is rarely prejudicial to the present interests and future progress of the race.

Such being the case, we now require some means of eliminating the coarser, more brutal or purely animal specimens of humanity, in order that there may be more room for the survival and multiplication of the more intellectual, more refined, and altogether distinctly human specimens. It is desirable that this should be effected by the natural or spontaneous proceeding of self-extinction, performed by the animal specimens themselves. If this self-immolation can be a process that is enjoyable in their own estimation, all the objections to it that might otherwise be suggested by our feelings of humanity are removed.

Now, these conditions are exactly fulfilled by the alcoholic drinks of the present day when used for the purpose of obtaining intoxication. The old customs that rendered heavy drinking a social duty have passed away, their only remaining traces being the few exceptional cases of hereditary dipsomania still to be found here and there among men and women of delicate fibre and sensitive organization.

With these exceptions, the drunkards of our time are those whose constitutions are so coarse, so gross and brutal that the excitement of alcoholic stimulation is to them a delicious sensual delirium, a

wild saturnalia of animal exaltation, which they enjoy at every new raving outbreak only whets their appetite for. While sober they actually arrange and prepare for a holiday booze; work and save money for the avowed purpose of purchasing the drink and its consequent ecstasies, which are the chief delights of their existence. When a professional "served his time," and is about to be released from prison, his faithful friends club together to supply him with the means of an uninterrupted course of intoxication; the longer it lasts the greater his happiness and the deeper his obligations of gratitude to his contributing pals.

We know that such indulgence has swept away the savage from the American continent, and prepared it for civilisation, as the mammoth and grisly bear have made sheep and oxen; and this beneficent agent, if allowed to do its natural work, will similarly remove the savage elements which remain as impediments to the onward progress of the communities of the old world. If those who love alcohol for the sake of the excitement they induce are only to be satisfied with cheap and abundant happiness, our criminal and pauper classes will be reduced to a minimum.

It is commonly supposed that because nearly all drunkards, therefore drunkenness is the chief cause of crime, a confusion of cause with effect. Crime and drunkenness are because they are concurrent effects of the same cause. Alcoholic stimulation merely removes prudence and true character without restraint or disguise. The brute who hits his wife when drunk would do so when sober if he dare. It is not but what we call the sober state is with him a condition of depression and feebleness due to the reaction of intoxication. If a number of quarrelsome men assemble and drink together, they finish with fighting. If a similar number of kindly men drink together, they overflow with generosity, profuse in their gifts, and finally become absurdly affectionate. The citizen who has subscribed but one guinea to a charity before dinner, will give his name for five after the "toast of the evening."

My general conclusion is that all human beings (except dipsomaniacs above-named), who are fit to survive as members of a civilised community, will spontaneously avoid intemperance. No artificial pressure of absurd drinking customs is applied, while those who are incapable of the general self-restraint which is advanced by civilisation, and cannot share its moral and

ants, are provided by alcoholic beverages with the means of "despatch" ; will be gradually sifted out by natural alcoholic action, provided no legislative violence interferes with their desire for a short life and a merry one."

A VISIT TO THE GOODWIN SANDS.

It is commonly supposed that these much dreaded shoals are nothing more than quicksands that have some special power of swallowing up the vessels that strike upon them. To most Englishmen the idea of playing a game of cricket on the Goodwin Sands is not only ridiculous and sensational but also impracticable. The Ramsgate boatmen find it profitable to organise special excursions for that purpose. A few days ago I spent about a couple of hours in strolling over these sands for the purpose of studying their structure and probable origin. At high tide they are completely covered, their whereabouts being only indicated by the light-ships that are moored near to them. Small vessels may sail across them safely at the high spring tides. At half-tide a horizontal line of white breakers is visible from the shore, and presently, as the tide falls, the white line is replaced by a line of dun colour, the sand now becoming high and dry.

As at this time that I landed on the north-west side of the bank and near to what was then its northern extremity. The wind was from the south and fresh. The north and north-west face of the bank was steep—remarkably so for a sand bank, an angle of about 45° with the horizon—so steep that it was easy to step from the top without wetting the feet.

Upward, *i.e.* to windward, the slope was very gradual, sea and land were commingled in swamp-like undulating level. These hollows or depressions of the sand constituted its chief peculiarity, the hollows between the sand billows being filled with clear water. The sand-pool-like rock-pools on the shore, were curiously devoid of life. No vegetation, of course, nor any beautiful actinia or anthea, for obvious reason that there is no hold for them. Neither did I see any shrimps or crabs, or blennies, no crustacea nor fishes of any kind or any holothuria. The only representatives of ordinary life were one sea-mouse and some jelly fishes. There was a sprinkling of shells of the same species as abound at Shell Ness, but they were empty. I saw no living mollusk, although I walked a mile along the sand.

the flatter side toward the sea level it became somewhat not more so than is usual at the water's edge on the south.

At first the form of the shoal was that of a parallel letter **U** with the arms out-sloping. It reminded me of the shading of last year's chief comet, which, as my father remember, had such a shape, and shaded away from the outer boundary into gradually increasing darkness toward the interior and further caudal extension. Let sand be the comet-light and sea for the dark sky, and you have the sands as I first saw them: the north end being represented as the head of the comet, and the southward out-thinning by the tail.

Gradually the water of the inner lagoon between the shoals, with the tide, and their outspread widened, and before it was at its lowest the whole expanse became a plain of uniform depth dotted with the pools above described, the firmness of the bottom increasing as the water fell away from it.

About half a mile farther northward was another shoal known locally as the "Northsand End." Between this and the channel of sea. The boatmen told me that this "swamp" is sometimes filled with sand to the level of low water, and at such a depth that a ship may sail through it at low tide, as happened 12 months ago, when a large American vessel was driven ashore and thus escaped the fate of those which, when aground on the firm sands, no longer yield to the waves, and are there broken to pieces. Quicksands would be far less dangerous.

THE ORIGIN OF THE GOODWIN SANDS.

WHY are the sands here? The popular tradition that the wicked Earl Goodwin, whose estate was situated here, by special judgment, is a myth that I need not discuss; I do not venture to contradict the Deal boatman who assured me that the sands are placed there by Divine Providence, in order to serve as a water for the Downs, and thus afford employment for the boatsmen and their crews, who traffic between the ships at anchor and the shore. His great-grandfather would have similarly agreed that Providence had placed them there to afford a living for the wreckers.

My own theory is that they are a necessary and natural consequence of a tidal whirl, produced by that eastward projection of the coast which extends from the Isle of Sheppey to the North Foreland.

The great tide wave that sweeps south-westward from the

It passes between the Netherlands on one side and our east coast on the other, strikes point blank against the barrier formed by the coast of Kent. This is indicated by the rapidity with which the whole of its cliffs are being swept away. In the *Gentle Magazine* of 1781 is a view of the Church of Reculver, with its spire standing far inland. In the time of Henry VIII. it was some distance from the sea; now it is on the cliff edge, and is only saved from destruction by an artificial sea wall, the bones having already been washed out of the graves of its old churchyard by the waves which have overwhelmed it. The whole of the cliff between Herne Bay and the North Foreland, where not artificially protected, is being swept away at an average rate of about two feet per annum. Herne Bay, excepting in name, has ceased to exist, the headlands which the bay was formed having been swept away bodily.

Now, what must happen when such a body of water (whether an incoming wave or stream) is thus checked and deflected? The water is flung aside in the direction of least resistance, which in this case is eastwards or towards the French side of the Channel, and on the west side a "backwater" must thereby be produced, such as may be seen in any flowing river where the convexity of a sudden bend or where any other sort of projection checks the stream, and where there is farther on a concave curve or bay on the same side of the projection. The stream proceeds in a heap on the opposite side of the river, and in the bay or concavity is a sort of pool in which the water flows in a sluggish circular course. Most of my friends have seen examples of this, and, like myself, have watched a floating object carried round and round, and at each circle touching the bank in stream so closely as to excite wonderment at its escape and return to its former circling.

In all such cases where the water carries any suspended particles, they are deposited in the middle of this whirl, and a bank or shallow is thereby formed.

Now, as a matter of fact, the Goodwin Sands is such a bank thus formed, the incoming and deflecting agent being the Kentish coast, as before mentioned, and the following convexity the bay between the North and South Forelands. A glance at a good map will show this.

I shall be asked very fairly—Is there any evidence of a circulating backwater on the west side of the sands, which, according to theory, corresponds to the bank or shallow of the river bay? One of the questions I have been striving to answer during a recent short visit to the neighbourhood.

And that there is such a backwater. It was the contradictory

and irregular proceedings of the tidal stream in the neighbourhood of Ramsgate and Sandwich which first suggested the above theory and induced me to visit the Sands. I found, both in swimming and boating, that I was carried in a direction contrary to justifiable and natural anticipations, and when I made enquiry of the boatmen as to the directions of the ebbing and flowing currents, they answered that it "depends upon the state of the tide," *i.e.* that the change of direction does not occur at flood-tide or low tide, when the tide changes, but at some intermediate period which they could not precisely define. Thus the stream has two opposite directions during the flow of the tide, and also two opposite courses during the ebb.

I confirmed this by my own observations, but must leave it to a good deal more before I can state at all definitely the law of these contradictory changes.

My present impression is, that the most experienced boatmen and pilots are themselves confused, and therefore make a mystery of it: that this secondary backwater is subject to great variations dependent on the force of the main tide and the manner in which it is affected by the wind, which may co-operate with the deflection influence above described, or may oppose it. This would greatly disturb the backwater and puzzle the pilot.

If I am right in this (and I hope to investigate it further), some or most of the cases of apparent blundering, when ships have been steered directly on to the sands, may be explained by the direction of the current being at the time opposite to that which previous experience led the steersman to allow for.

Lyell regards this bank as "a remnant of land, and not an accumulation of sea-sand," and says that this may be proved "from the fact that, when the erection of a lighthouse on this bank was in contemplation by the Trinity Board in the year 1817, it was found by borings that the bank consisted of fifteen feet of sand resting on blue clay."

This appears to me to suggest the conclusion that the whole of the recent submarine deposit, first of clay, then of sand upon the mud which underlies both. A deposit of such blue clay is actually taking place at the foot of the West Cliff of Ramsgate, and of Pegwell Bay, whenever the sea is calm, but it is washed out in stormy weather and then replaced by a thin layer of sand upon the mud. Anybody may prove this by walking along the shore. At one time he may do so in seaside slippers, at another he will need mud boots, and sink ankle deep in blue mud in some places. This mud

of the Stour, and forms, between Sandwich and the flats, one of the fishing banks of the Ramsgate trawlers; which they conduct visitors in their daily fishing excursions. The blue clay is probably the primary deposit as it fell in the water that remained undisturbed. The fluctuations that would close the "swatch" and otherwise shift the deposit reach a depth of about fifteen feet deep; by these the finer clay particles have been drifted away, leaving only the coarser sand, as a deposit in the flowing water.

SHELL NESS.

IMMEDIATELY connected with the above is another sea-side problem that may be seasonably discussed just now. A shell-gathering visitor may walk along the sands all the way from Herne Bay, Margate, round the North Foreland to Broadstairs and Ramsgate, and thence on to Pegwell Bay, and only find a few specimens of shells singly here and there. He will then be stopped by the heavy blue clay-mud of the Stour, which river he may cross at the Deal near the Deal road. Proceeding onward in his original direction of course he will presently and suddenly come upon Shell

Ness. This is a stretch of shore bordering the Sandwich Flats, extending to the southern limit of the Stour mud deposit about half a mile towards Deal. It is a loose stratum of whole and broken shells mixed with a little sand. Cartloads of specimens of the species of shells for making the toy shell boxes, &c., sold at the sea-side, may be gathered, or I may say shovelled. It is, in fact, the mine from which the makers of the shell ornaments obtain their raw material.

Why should there be such an extraordinary accumulation of these shells at this particular place? This physical conundrum vexed me very much some eight years ago while spending a few weeks at Deal. I then gave it up, but since working out the above problem of the Goodwins I have been more successful in framing a plausible hypothesis.

As above stated, I found on the Goodwin sands specimens of shells of the same species, not nearly so abundant as at Shell Ness, but more so than on the Margate or Ramsgate sands. Roughly speaking, they were lying at about three feet apart, and mostly empty, but empty. The living animals must therefore be near and very abundant, many of the bivalves doubtless in the sand below, and the following species were largely represented,

we were ascending, saw no living specimens of species. A few of these made their appearance only when proceeding towards Deal.

REGELATION AND WELDING.

MOST of my readers are doubtless more familiar with the phenomena which are usually called "regelation," or refreezing. If two pieces of ice are put together at or near their melting point, they unite and become one. In the same manner, if many pieces are thus treated, the same, of course, may be done. Snow particles may be compressed into a solid mass of pure ice, as they are on a great scale in the formation of glaciers. My own method of illustrating this is to place a little snow in a little iron syringe, the piston of which is driven in by screw power. This shows, firstly, the uniting of the particles to form a clear cylinder easily removed, and this cylinder may be drawn out an-inch in diameter. When returned and further compressed, it is squirted out as a long continuous transparent string of ice, or ordinary ever-pointed-pencil "lead," of which the syringe was constructed.

Another very pretty and well-known experiment is to place a block of ice and support it at both ends, then pass a copper wire to the ends of which weights are attached, and being warmed by the air around, and conducted

reduces the freezing point by only 0.0072° , or a trifle more of a centigrade degree.

There are many substances that behave in the opposite to water, their freezing point being raised by pressure. For example, has its solidifying point raised ten whole centigrades (from 64.7 to 74.7) by one atmosphere of pressure; permaceti is raised from 51° to 60° ; of stearine from 67.2° and of sulphur from 107° to 135° C.

All these substances exhibit all the phenomena attributed to regelation. Faraday's celebrated experiment of floating pieces of ice in water then bringing them in contact while immersed and showing that they all stick together, may be imitated by placing lumps of solid wax in melted wax (at about the melting point) and treating them in the same manner.

Everybody knows that two pieces of sealing wax raised to near their melting point stick together if made to touch each other, and will not separate if pressed together. The same is the case with iron, with glass, with lead, and every other substance that melts gradually before becoming fluid. All such substances are weldable, in common language, they "stick together," when softened.

It is only when ice is thus near its freezing point that it can be welded, as everybody knows who has tried to make a snowball with ten or a dozen degrees below the freezing point.

The regelation of ice in the experiment above described proves the viscosity possessed by wax, pitch, iron, glass, &c. &c., approaching their melting points, and therefore that it should be weldable or—pardon the word—sticktogetherable; which however heterodox, is not worse than regelable.

The views of the subject, which I published some years since, were further illustrated by some recent experiments of W. Spring. He stated the regelation of ice by compressing similar crystalline bodies, such as sodium nitrate, which, when coarsely powdered and subjected to sufficient pressure, "unites like drops of water." Lead filings, powdered bismuth, zinc filings, aluminium filings, copper filings, &c., in like condition, were similarly made to cohere.

It has long been known that a leaden bullet, cut in half, may be welded by even a moderate pressure, if the cut surfaces are clean and bright. In all these cases it appears that when near the melting point the amount of pressure required to effect the welding is small, but increases at lower temperatures, but that even where low temperatures are compensated by very high pressures, the welding is effected by a softening similar to that which precedes fusion by heat.



The Science Magazine

The following was presented to a meeting of the American Association for the Advancement of Science, which opened at New York on the 29th of December, 1901. The speaker was the author of the paper, and the following is a summary of the substance of his address.

The Science of the Future

It is a common belief that the future of science will be determined by the progress of the physical sciences. It is true that the physical sciences have made great progress in the last few decades, but it is not true that they will determine the future of science. The future of science will be determined by the progress of the biological and social sciences.

The biological sciences have made great progress in the last few decades, and it is to be expected that they will continue to make great progress in the future. The social sciences have also made great progress in the last few decades, and it is to be expected that they will continue to make great progress in the future. The physical sciences have made great progress in the last few decades, but it is to be expected that they will continue to make great progress in the future.

The progress of the biological and social sciences will determine the future of science. It is to be expected that the biological and social sciences will continue to make great progress in the future. The physical sciences will continue to make great progress in the future, but they will not determine the future of science.

W. MATTIEU V

TABLE TALK.

RABELAIS.

statue of Rabelais, which I have on more than one occasion spoken of as in preparation, has now been erected in a town of Touraine, which claims to be the birthplace of the naissance teacher. Less stir than might have been expected made in France, while in England few newspapers have more than mention the event. For myself, I hope before weeks are over to make a pilgrimage to Chinon, which, apart from associations, is one of the most picturesque towns in France. anxious to know which of the two types of face, utterly different in authority, which are found in France, has been embodied by the sculptor. The features of Rabelais are not, I might say, easy to sentimentalise, yet the effort has been made. I own half-a-dozen oil paintings of Rabelais, all of them claiming originality. The most characteristic head is, however, that on a bust of Noël Ruffier. Here alone do I find the mingling of the human and the animal, which fits the great apostle of Pantheism, the high-priest charged to deliver the mystic revelation of the Bouteille.

"LE LIVRE."

At a sight of the model of Rabelais of which I speak, I am indebted to *Le Livre*, in which an engraving of it appears. In this shape, the work is unpublished. I wonder how many of my readers are familiar with *Le Livre*, the most luxurious and scholarly periodical which has yet been devoted to bibliography. I bought it, from the beginning, in 1880, graces my shelves, and forms a source of information and delight. Some of the best and most characteristic writing of men like M. Champfleury and Le Bibliophile appears in its pages, and the editor, M. Octave Uzanne, to whom owing the recently published volume *L'Eventail*, which is a true marvel of French typographical and illustrative art, is indebted for many delightful bibliographical sketches and studies. I long sought an occasion to draw the attention of my readers to which every lover of books and student of bibliography is

bound to possess, and which as yet has failed to obtain in England the reception it merits.

DID ROBESPIERRE COMMIT SUICIDE?

WAS the wound of Robespierre received on the famous night of Thermidor self-inflicted, or was it due to the general Méda? Thiers states distinctly, "Robespierre decided at length to put an end to his career, and found in this pass to which he was given courage to kill himself. He discharged a pistol at his head, but the bullet, entering below the lips, pierced his cheek, and inflicted a wound that was scarcely dangerous." ("Histoire de la Révolution Française," livre 23.) Carlyle draws a picture of Robespierre "sitting in a chair with pistol-shot blown through not his head, but his under-jaw; the suicidal hand had failed;" and says, concerning Méda's assertion that it was he who shot Robespierre, "Few credited Méda in what was otherwise incredible." On the other hand, M. Léon Joubert, in the "Nouvelle Biographie Générale," summing up the conclusions of various historians, is not even at the trouble to mention the report of suicide. His words are, "Robespierre was seated in a fauteuil, his left elbow resting on his knee, and his head resting on his left hand; before him were seven papers, among which was, stained with his blood, an appeal to insurrection, which bears only the first two letters of his name. Méda, upon seeing him, discharged a pistol at him and broke his lower jaw." So carefully written are the articles in the "Nouvelle Biographie Générale," that a statement like this may almost be accepted as conclusive. The question whether Robespierre attempted to commit suicide has been mooted of late in the English as well as the French press, and *La France* reproduces the deposition of Méda, in which he claims to have fired the shot.

THE STATEMENT OF MÉDA CONCERNING ROBESPIERRE.

THE younger Robespierre, it is known, threw himself out of the window on the arrival of the assailants. Méda's words are, "I knew the elder Robespierre; he was sitting in an arm chair—this was in the hall of the Hôtel de Ville—having his elbow on his knees, and his head leaning on his left hand. I made a rush at him, and presenting my sword to his heart, said to him, 'Yield, traitor!' He raised his head, and answered, 'It is you who are a traitor, and I will have you shot.' At these words I took one of my pistols in my left hand, and, stepping one pace aside, fired at him. I intended to hit him in the heart, but the ball struck his chin and broke his left jaw." Partly in consequence of this action, Méda was made a Colonel and a Baron of the Empire.

EARLY FORMS OF SCENIC DECORATION.

Little genuine interest is felt in early literature, that mistakes concerning it remain current and unchecked. Especially is this case with regard to the performances of mysteries or miracle-plays, and the origin generally of the drama—concerning which, until the latter half of the present century, complete ignorance prevailed. A recently published article upon "Stage Decoration" which appeared in an evening journal, I find this sentence jauntily introduced: "The miracle-plays which may, perhaps, be said to have been the germ of the modern drama, could for the most part have been carried out with but little scenery." So far from accurate is this statement—which none the less represents what might be called a current opinion, or any opinions held on the subject—that it is directly opposed to the truth. For months before the performance of a miracle-play the preparations for it commenced, and furnished matter of comment and discussion over a large area. Some of the solemnities were so costly that the municipality which charged itself with the chief burden of the representation found itself embarrassed for many subsequent years. The effects, meanwhile, were occasionally such as a modern scene-painter or machinist scarcely understands. In a representation of the "Mystery of the Acts of the Apostles," commencing at Bourges on the 30th April 1536, we find, in full daylight, the face of Saint Étienne burning for a moment like a sun." A mechanical dromedary and camel are introduced. A lion, also mechanical, tears off the hand of a pagan. A vessel charged with all manner of animals descends from heaven to earth, and is drawn up again; an owl lights on the head of Herod Agrippa, a serpent creeps along the ground, a devil issues from the body of a person possessed, two marvellous dragons cast fire from eyes, jaws, ears, and nostrils; another, "the most horrible that can be conceived," crouches at the feet of St. Michael. In a place of Saint Barnabas there is put in the fire an imitation body full of bones and viscera. Scores of similar effects are presented in this one piece. Without enumerating these, I will supply the general directions for one scene. For the representation there is required a high tower "on which Simon Magus shall mount in order to take flight. Then should come a movable cloud which should elevate him in the air. The cloud should then disappear and leave the body exposed. At the prayer of Saint Peter the body should fall to the ground, breaking its head and legs." In the same scene, if such it may be called, St. Pol is decapitated. His head should then make three successive bounds, and from each spot at

when a hill a fountain of blood, milk, or water should spring, probably some of these effects would puzzle a modern manager.

INCIDENTS OF EARLY MISE-EN-SCÈNE.

IN a miracle-play of the "Creation of the World," God sitting in Heaven creates the sky. "Then a sky, the colour of rust, is drawn across the scene, and in this must be written, *Cœlum creatum.*" God then creates fire, and flashes of flame should illumine the stage. After the other elements are made and indicated to the public, nine choruses of angels are created, and in the midst of them is placed the angel Lucifer, with a large sun shining behind him. So soon as he is created, Lucifer, with a portion of the angels revolts and endeavours to ascend to the seat of God. The means for this effect are indicated. They consist of a hidden wheel turning on a screw pivot. God bids Michael crash the rebel angels, and fall from Heaven into hell, and are at once transformed into devils. Devils are kept ready dressed to replace them, in order to quicken the action. This effect, which is much less elaborate than the one previously described, appears in a miracle-play of the fifteenth century. It is curious in showing the scheme of the fallen angels, of which no mention is made in Genesis. Not easy is it to understand how such scenes as the Siege of Jerusalem, which occur in a mystery, could be shown. Three large towers have to be exhibited at the same time, while the streets of the city are crowded with turbulent citizens and robbers, amidst whom a madman is to go up and down, shouting out, "Woe unto Jerusalem!"

JOHN DAY ON THE TREATMENT OF SCHOLARS.

IN his defence of scholarship and scholars, Day, whose Works have been recently collected by Mr. Bullen, warms to an amount of zeal which is not common in writers of his time. A student himself at Caius College, Cambridge, he acquired, like most of his fellow-dramatists, a close acquaintance with poverty and misery. Not only in Ben Jonson and in Spenser, who among English writers furnish the clearest insight into the sufferings of the scholar, gives us pictures of the times as Day supplies in his "Humour out of Breton Here is one of several instances: "Will not woman respect a scholar for his good parts?" asks Aspero, one of the characters. He receives the answer, "Yes, some few; but all for his good gifts. A gentleman with his good gifts (shall) sit at the upper end of the table on a cushion and a cushion, when a scholar with his good parts will be glad to sit on a joint stool in the lobby with the chambermaid."

THE
GENTLEMAN'S MAGAZINE.

SEPTEMBER 1882.

DUST: A NOVEL.

BY JULIAN HAWTHORNE.

Only the actions of the Just
Smell sweet and blossom in the Dust.

CHAPTER XIX.

AS Tom Bendibow left London and approached Kensington, the afternoon was warm and still, and slight puffs of dust were beaten upward by each impact of his horse's hoofs upon the dry road. The foliage of the trees, now past its first fresh greenness, had darkened considerably in hue, and was moreover dulled by the fine dust that had settled upon it during the preceding week of rainless weather. Pedestrians sought the grassy sides of the road, and fancied that the milestones were farther apart from each other than they ought to be ; and, in the fields to the right and left, the few labourers who were still at work moved with a lazy slowness, and frequently paused to straighten their backs and pass their brown forearms across their brows. Toward the north and west the pale blue of the sky was obscured by a semi-transparent film of a brownish tint, which ascended to meet the declining sun, and bade fair to overpower it ere its time. It was a day of vague nervous discomfort, such as precedes a thunderstorm, though there were no indications that a storm was brewing. On such a day neither work nor indolence is altogether comfortable ; but the mind involuntarily loiters and turns this way and that, unready to apply itself to anything, yet restless with a feeling that some undefined event is going to occur.

Mr. Bendibow's mind did not lack subjects with which it might have occupied itself ; nevertheless, no special mental activity was indicated by his features. He rode for the most part with his head bent down, and a general appearance of lassitude and dejection.

Once in a while he would cast his glance forward of the way, or would speak a word to his horse; seemed to be at a standstill within him; he was in partial torpor which, in some natures, follows vivid emotion. He paid no heed to the meteorological phenomena if he felt their effects at all, probably assigned them a subjective origin. The sunshine of his existence was over its time, and the night was approaching. He looked forward to the storm, with its stress and peril and after-refreshment; but he was at ease and without hope; his path was arid and dreary, and the little journey of his life would soon be without object.

For the moment, however, he had his mission and he must derive what enjoyment he might therefrom. He looked listlessly through Kensington, taking small note of buildings and other objects which met his sight. He had beheld them a thousand times before, and would he not do so as often again? A little while more and he began to draw near to Hammersmith town, and now he sat more erect in his saddle, drew his hat down upon his brows, with the feeling that he would soon be at his destination. Passing the "Plough and Shovel" ostler, who was crossing the road with his clinking pail, he bowed, forelock and grinned deferentially.

"Good day, sir—yer servant, sir! Tiresome weather, a man can't 'ardly bear his flesh. Bound for 'Twick'nam?"
Tom shook his head.

"Oh! beg parding, sir. Seein' Sir Francis drive by just now, I says to myself——"

"What's that?"

"The bar'net, sir—well, 'twas mebbe an hour since; I was party along with him. So, I says to myself——"

"Go to the dooce!" ejaculated Mr. Bendibow, putting himself in motion.

"Thankee, sir; dry weather, this, sir; 'ope yer horse's yer health . . . Thankee, sir!" he added, deftly catching the pipe which Tom tossed to him, and spitting upon it before he put it in his pocket; "and if ever yer honour wants to be party to a piece of as pretty a piece of 'orseflesh . . ." But by the time he was out of earshot; so the ostler winked at the chambermaid who was looking out of the inn window, and resumed his walk down the street, whistling. Tom, meanwhile, after riding a quarter of a mile farther, turned off to the left, and presently drew rein in front of Lockhart's gate. Marion was fixing some ivy to the side

round on hearing the horse's hoofs ; and Mr. Bendibow, lifted his hat, descended from the saddle and hitched his the gate-post. Marion remained standing where she was. "Good evening, Miss Lockhart," said Tom, advancing up the "don't know if you remember me—Mr. Bendibow. Hope I in good health."

"Thank you, sir. Have you ridden from London? You choose rather."

Marion was aware of a lack of cordiality in the young lady's manner, and being in a somewhat reckless mood, he answered bluntly, "As I'm not out for my own pleasure, nor on my own business, and I ain't going to keep you long waiting. I've a letter from Mr. Grant—that's the name the gentleman goes by, I believe ; home?"

"I think Mr. Grant is in the City ; at all events, he is not here." "I've a letter for him from Perdita—the Marquise Desmoines, if you say," said Tom, producing the letter and twisting it about in his fingers, as if it were a talisman to cause the appearance of the person to whom it was addressed.

"You'll give it to me, Mr. Grant shall have it when he returns," said Tom.

"That won't do—much obliged to you all the same ; I'm to get it into his own hands. You don't know where I might find you?" inquired Tom, feeling disconsolate at this miscarriage of the only remaining opportunity of usefulness in the world.

"I'll be back some time to-night ; won't you wait for him here?" said Marion, softening a little from her first frigidity ; "mother will be glad to see you, and . . ."

"Mr. Grant won't be back till toward midnight, but I can tell you you'll find him," interposed a voice from the air above the voice of Mr. Philip Lancaster, who was leaning out of his window on the floor above. "How d'ye do, Mr. Bendibow? He's waiting with your father at his place in Twickenham."

"Waiting with my father ! The dooce he is !" exclaimed Tom, disguising the surprise which this information afforded him. "I'm quite sure of what you say, Mr.—er—Lancaster," he said, growing quite red as he stared up at that gentleman.

"Mr. Grant seemed quite sure of it when he left me to-day," said Tom, smiling ; "but the best-laid plans of mice and men often go wrong, you know."

"What's that? Well, it's beyond me, the whole of it, that's all I can say. Dining with Sir Francis, is he? Well, stifle me if I'm going

Tom let it all the way through his perplexity and unappreciated

"No, I'm going, Miss Lockhart," he said, with a rush. "I know I ain't on my good manners this evening, but I can't help it. If you only knew what a lot of things there is trouble about you'd understand how 'tis with me. Beg your pardon for disturbing you, and wish you good evening."

"Good evening," said Marion kindly; and unexpectedly she took his hand. He took it and pressed it hard, looking into her eyes. "Thank you," he said. "And I like you—by George, I do. I wish there were more women like you in the world to care anything about me." He dropped her hand and turned on his heel. There were tears in his eyes, and he did not wish Marion to see them. He reached the gate and mounted his horse, and the next elevation saluted Marion once more; but he bestowed mere good wishes upon Philip and so rode away.

"I like that little fellow; I believe he has a good heart," remarked Marion, addressing herself to her ivy, but she said nothing to Philip.

"I'm afraid he doesn't like me," Philip rejoined.

She paused a moment, and then said, "I don't wonder."

"Why?" he demanded.

"Oh, I can put two and two together," answered she, shaking her head with a kind of ominous sagacity; and she would give no further explanation.

When Tom found himself on the high-road again, he

real harm could come from waiting till next morning before Perdita's letter, inasmuch as Mr. Grant could certainly not sit at that hour of the night. After a minute's irresolution, Tom turned his horse toward London, in an exceedingly slow

When he came in sight of the "Plough and Harrow" his spirit conceived a sort of compromise. He would spend here instead of returning to London. He could then discharge his commission the first thing in the morning, and report to by breakfast time. The difference was not great; but such it was for the better. So into the courtyard of the inn with a curvet and a prance, and a despotic shout for the

the ostler of the "Plough and Harrow" was an old acquaintance. Mr. Thomas Bendibow's, and under his guidance and protection Tom had enjoyed the raptures of many a cock-fight and ring, and had attended many an august exhibition of the art of self-defence, and had betted with varying fortune (according to the ostler's convenience) on many a private trial between whose jockeys were not bigotedly set on winning upon wagers. Latterly, it is true, the son of the baronet had made efforts to walk more circumspectly than in the first flush of his youth, and, as a first step in this reformed career, he had abated the frequency of his consultations with Jim the ostler; and beyond occasional chance word or two, and the exhibition on Tom's part of a liberal alms-giving, the friendship had outwardly fallen into disrepair.

There are seasons when the cribbed and confined soul seeks release and expansion, and yearns to immerse itself once more in the sweet old streams of habit and association that lead the way, and afford a man opportunity to convince himself that the seeds of unregenerate human nature still adhere to him. Such a season had now come for Tom Bendibow, and he was resolved to let the ostler and the horse have their way. Accordingly, when the ostler was seen to his patron's horse, and skilfully tested the condition of his temper, began to refer in guarded terms to the existence of the noblest pair of bantam chickens as hever mortal eyes did not respond at once to the familiar hint, and no long time ere he found himself in the midst of surroundings which were more freeable than exclusive. Into the details of these proceedings will not, however, be necessary for us to follow him. It is only to note that several hours passed away, during which the

himself in the darkness subjected himself to various forms of torment, including that derived from a peculiarly collective species of music and his family, in obedience to a sudden impulse, of several whimsical enough, but which was no doubt directly communicated to him by the finger of fate, he sprang to his feet, loudly ejaculating that his horse he brought out and added to with him he would ride to Twickenham.

"Never you go in to think of such a thing, Mr. Bendibow, remonstrated Tom the ostler, with much earnestness. "Why, it might be it is dark as Terribles. I'll heat my cob; and footpad tuck between here and there as leaves in Wallambrogin!"

"Have not my horse in two minutes, youascal, or I'll foot you. Look alive, now, and don't let me hear any more confounding gibberie. d'ye hear?"

"I do go agin my conscience, Mr. Bendibow," answered ostler sadly. "I do indeed! However, your word is law to sir, now as hereafter; so 'ee goes for it!" and he soon departed stablewards. And on the whole, he had no reason to be dissatisfied with his night's work, as the plumpness of his horse's pocket testified.

Mr. Bendibow's horse had spent the time more profitably to his master; yet he scarcely showed more disposition to be off than did the latter. There was a vaulting into the saddle, a clank of hoofs, and a solitary lantern swinging in the hand of Jim the ostler as he turned and made his way slowly back to his quarters, wondering what hever could 'ave got into that boy to be hoff so sudden.

The boy himself would have found it difficult to answer the question. A moment before the resolve had come to him, he had anticipated it no more than his horse did. But, once he had resolved himself that he would ride out and meet Mr. Grant on the way from Twickenham, the minutes had seemed hours until he was on his way. There was no reason in the thing; but many momentary human actions have little to do with reason; and, besides, Tom was not at this time in a condition of mind or body in which the dictates of reason are productive of much effect. He felt that he must go and nothing should stand in his way.

When the ostler had affirmed it was dark, he had said no more than the truth. The brown film which had begun to creep over the heavens before sunset had increased and thickened, until it pervaded the heavens like a pall of smoke, shutting out the stars and blurring the landscape. It was neither cloud nor fog, but seemed to be a new quality in the air, depriving it of its transparency.

us darkenings have been not unfrequent in the history of the climate, and are called by various names and assigned to various causes, without being thereby greatly elucidated. Be the what and why it might, Tom rode into the midst of it and his horse to a gallop, though it was scarcely possible to see one the road from the other. He felt no anxiety about losing any more than if he had been a planet with a foreordained visible orbit. The silence through which he rode was as deep as the darkness; he seemed to be the only living and moving thing in the world. But the flurry of the dissipation he had undergone, and the preoccupation of his purpose, made him feel so alive that he felt no sense of loneliness.

It had been his intention to take the usual route through Kew and Richmond; but at Brentford Bridge he mistook his way, and, crossing the river there, he was soon plunging through the obscurity of the marshes on the Isleworth side of the river. If he perceived his error, it did not disconcert him; all roads must lead to the Rome of the day he was bound. Sometimes the leaves of low-lying branches brushed his face; sometimes his horse's hoofs resounded over the surface of a little bridge; once a bird, startled from its sleep in a thicket, uttered a penetrating note before replacing its head beneath its wing. By-and-by the horse stumbled at some irregularity of the road, and nearly lost its footing. Tom reined him sharply, and, in the momentary pause and stillness that ensued, he distinguished a faint, intermittent noise along the road behind him. He put his horse to a walk, pressed his hand over his forehead to make sure that the letter was safe in its place, and peered into the darkness ahead for the first glimpse of the approaching danger, who he made sure was near. But he was almost within arm's length of him before he was aware, and, had turf been under foot instead of stony road, the two might have passed each other without seeing it.

"Hullo!" cried Tom.

"Hullo, there!" responded a voice, sharp but firm. "Who are

you, Tom Bendibow. You're Charles Grantley, ain't you?"

"You have good eyes, sir," answered the other, bringing his horse close alongside of Tom's, and bending over to look him in

"Do you ride on, Mr. Bendibow, or shall you return with me?" inquired the other, after a pause.

"I'll go with you," said Tom, and, turning his horse, the two rode onward together side by side.

CHAPTER XX.

PHILIP LANCASTER had gone to bed early this night; he had spent all the night before, trying to compel unwilling rhymes to agree with one another, and was now resolved to discover what poetic truth lay in sleep. But sleep proved as unaccommodating as death. He could not discharge his brain of the crowd of importunate and unfruitful thoughts sufficiently to attain the calm necessary for repose. In fact, he had more than loose ends of poetry to disturb him; his relations with Marion had not been in tune since the mishap in Richmond Park, and she had, up to this time, avoided explanations with a feminine ingenuity that was not to be manœuvred. He understood, of course, that a lady who allowed herself to betray special regard for a man may feel offended by the discovery that the man has had intimate relations with another lady; but, as between himself and Marion, matters had gone so far as an explicit declaration, on her side at all events; it was, therefore, peculiarly difficult to accomplish a reconciliation. Not less difficult was it, apparently, to begin over again at the beginning, and persuade her to love him on a new basis, as it were. Her position was this—that she would not yield as long as the ambiguity remained touching the past relations of himself and Perdita; and that her pride or perversity would not suffer her to let that ambiguity be cleared up. Possibly, moreover, Philip may have felt that, even were the opportunity given, the ambiguity in question might not be easily removed. In these circumstances his prudent course, as a man of the world, would have been to renounce Marion altogether. She was not, indeed, from any worldly point of view, a desirable match. More than this, she was charged with certain faults of temper and temperament—faults which herself was at no pains to disguise. She was not even beautiful in the conventional sense: Philip had seen many women far more generally attractive. Finally, he could not so much as be certain that she had ever positively loved him; her regard for him had been no more than a fancy which no longer swayed her. But, when all was said, Philip knew that there was something in Marion—something rare, tender, and noble—which he had

e, as he lay on his bed, encompassed by darkness on
ry mind could paint no cheerful image, he thought he
sises in the house, as if some one were still stirring.
nt returned home? No ; his firm and precise step,
stair, would have been unmistakable. It could not
hart, either ; she was of a placid constitution, and
fully and long. Presumably, therefore, the author of
s Marion, who was quite as apt to be awake at night
time, and who might have gone downstairs to get a
r downstairs seemed to open and shut softly, and a
came up the staircase and rattled the latch of Philip's
Marion have gone out? Philip was half inclined to
investigate. But the house was now quite still ; and by-
became more drowsy, he began to think that his
ad probably played him a trick. There were always
houses, at night, that made themselves. Philip was

once he found himself wide awake, and sitting up in
dreamed it, or was there really a knock and a voice
voice that went further into his heart than any other?

incafter !”

his feet in a moment. “ Yes, Marion. What is it ?”
our help. Get ready and come quickly.”

said speaking low as she had done : and in a few

than any words could have done with the conviction of peril, and of intense purpose on her part to meet it. For a moment the suddenness of the summons and its import had sent the blood tremulously to Philip's heart. As he crossed the threshold of his room Marion put her hand to his and touched and clasped his own. Her touch was waited for, and immediately a great surge of energy and strength passed through Philip's body, making him feel doubly himself and able to conquer all the evil and wickedness of the world. The sympathy between Marion and himself, which had long been dormant, was reawakened by that touch, and rendered more powerful than before. Their will and thought became more vitalising and confirming each other. And in the excitement and suspense and of the hardening of his nerves to the required demand, he was conscious inwardly of a great softening of his spirit, which, however, enhanced his strength instead of detracting from it. It was the secret influence which enters into all faculties of the mind and heart, purifying and strengthening them. Love is life, and is capable of imparting force as well as to the tenderest thoughts and deeds.

Marion now led the way downstairs, and Philip followed, treading lightly and wondering at what moment his own valour would be called upon. Marion opened the door, and when it closed behind them the strange black shadow pressed upon their eyes like a material substance. However, however, appeared a small light, seemingly placed like a lantern, but it had very little power to disperse its rays. Nevertheless, Philip was able dimly to perceive a large wall and the gate, which, by the aid of mother-wit, he could find a horse. And the lantern in Marion's hand pressed forward, and the horse was attached to a waggon. She hung on the side of the waggon and loosed the horse's rein.

"Get in after me," she said, "and then I'll tell you how to drive."

"Well?" said Philip, when he had taken his seat.

"When we get to the highway, keep to the right side of the bridge. After that I'll tell you more."

"How did the horse and waggon come here?"

"I got them just now from Jebson, the baker's man, and I knew he would let me have them without any more than I wanted them for."

"Then 'twas you I heard go out a while ago?"

Grant's."

"Is his life in danger?" Philip exclaimed, greatly surprised. "How do you know?"

The girl was silent. But after a minute she said: "You see Tom Bendibow's being here this afternoon . . . You know Mr. Grant was at Twickenham. He was coming home by the road isn't safe on a night like this, and he carried no

"Is that then all your fear is that he may be attacked by footpads?" Philip, feeling relieved. He had apprehended something more

"I fear he will be attacked," was her reply.

"But in that case," rejoined Philip, after a few moments' reflection, "ought to turn to the left. The road from Twickenham goes through Richmond."

"He should not find him there," said Marion. "He will come by Isleworth."

"Did he tell you so?"

"No. I didn't know he was going to Twickenham until you

"Then why should you . . . The Isleworth road is at least a quarter of a mile longer."

"I shall find him there," she repeated, in a low voice. And then she added, with a manifest effort, "I will tell you—somebody. You may as well know."

"Is something that keeps happening, then!" demanded Philip, more than ever perplexed.

As Marion was about to reply, the left side of the waggon lurched downwards, the horse having, in the darkness, taken them over the side of the road. Philip pulled his right rein violently, and it gave way, Mr. Johnson's harness being old and out of repair. Philip jumped down to investigate the damage by the aid of the lantern.

"If I can find a bit of string, I can mend it," he reported to Marion.

"I'll give you my shoe-strings," she said, stooping to unfasten them. "They are of leather and will hold. But be quick, Philip, or we shall be too late."

There was such urgency in her tone, that had Philip needed any stimulus, it would have been amply provided. He repaired the break with as much despatch as was consistent with security, and then resumed his seat beside Marion.

"I fear we shall be too late," she repeated; "we should have started earlier. It's my fault; I waited too long."

"Are you so certain—" began Philip; but she interrupted him.

"Do you remember the time Mr. Grant came home before, when they tried to shoot him and he fell from his horse?"

"Yes; you went out and met him."

"Yes, because I knew he was coming; when we were standing there by the open window, and the flash of lightning came, I knew he was hurt. I would have gone then, only I tried to think it was my fancy; I was afraid to find I was mistaken. And when I think of it in one way—as other people would—it always seems as if it could not be true—until it happens. It has been so ever since I was a little girl."

"Oh, a presentiment!" murmured Philip, beginning to see light.

"The name makes no difference," returned Marion, seeming to shiver a little. "The day my father was killed, I saw him. I saw him, with the wound in his breast. I said to myself, if that turned out to be true, I should know always afterward that I must believe. When you came and told how you found him, you only told what I had seen. I could have corrected you, if you had made a mistake."

"You saw him?" echoed Philip.

"I saw him—something in me saw him; just as I saw Mr. Grant this evening. But it wasn't that he came to me—that he appeared before me like a ghost; but I was where he was, and saw the place as well as him. It is at the bend of the road, not far from the little brook that runs into the river."

we heard of such a power, but I never knew what to think Philip said. "But, Marion, if this peril to Mr. Grant has ended yet, you must have seen not merely what was beyond it, but what was in the future. How could that be?"

"I can't know; it's no use trying to know. It can't be reasoned unless you can tell what time and space are. When such things happen to me, there seems to be no future and no past; it is all one—*all one now*. And no good ever comes of my seeing; things come to pass, and I cannot help it. It has been a curse upon me, but if we could only save Mr. Grant, I would thank God!"

"I shall soon know about that," said Philip; "as near as I can tell, we are out in this blackness, we must be pretty near the place where it is to be of by this time."

Marion made no reply, save by a slight movement, as if she were pulling herself together, and they drove on in silence. Their conversation had been carried on in low tones, but with deep and strong emphasis on Marion's part; she was roused and moved in a way that Philip had never seen before; the activity of the power which she believed herself to possess had caused the things which usually obscured her character to roll back; and Philip, conscious of the immediate contact, as it were, of a nature warm, passionate, and intensely feminine. The heavy darkness and stillness of night that enveloped him and her was made, in a sense, less by this revelation, and the anticipation of the adventure so short a distance before them overcame the intellectual darkness which was the vice of his character, and kindled the latent fire of his soul. How incongruous sounded the regular and measured footfall of the old white horse, duskily visible in the distance as he plodded between the shafts.

A few minutes passed thus; and then a hard, abrupt noise rang out flatly without an echo. The distance from which it came was not more than a hundred yards. The horse threw up his head and partly halted, but immediately resumed his jog-trot. Philip, holding the reins in his left hand, grasped his pistol with his right, and cocked it. Marion rose to her feet, and sent forth her voice, in an astonishing volume of sound, leaping penetratingly into the distance. Another shout answered hers more faintly from the blind beyond. It was not repeated. The waggon jolted roughly over the narrow bridge that spanned a still-flowing brook. Then, like a portentous birth out of sable chaos, sprang the scrambling of a horse's headlong gallop, and a dark mass hustled by, with sparks smitten from the flinty road by iron-shod hoofs. It

passed them and was gone, plunging into invisibility with a fury of haste, as of a lost spirit rushing at annihilation.

Philip had raised his weapon to fire, but a shade of doubt made him forbear to pull the trigger. This man might not be the one, and to kill an innocent man would be worse than to let a man escape. Marion, who was looking straight forward, did not seem to notice the figure at all as it swept past. All eyes were concentrated elsewhere. The old white horse startled out of his customary impassivity, lifted up his head, and rattled the waggon along at a surprising rate. But the scene ended nearly at an end.

A little way beyond the bridge, the road, which had lain between hawthorn hedges, out of which, at intervals, elm or lime trees, suddenly spread out to three or four feet in general breadth, forming a sort of open place of oval shape about half an acre in area. The road passed along one side of the oval; the rest was turf, somewhat marshy toward the center. Philip stopped the horse, and he and Marion got down. Philip held the lantern, and they went forward on foot. The narrow beam of the lantern, striking along the ground in front, rested flickeringly on a dark object lying near the edge of the road, next the center. Marion walked up to the object, and Philip stooped to examine it. She stood by with her head turned away. But, at an instant's glance from Philip, she started violently and began to tremble.

"There are two here!" he said.

Marion's teeth chattered. "Dead?" she said, in a tremulous voice.

"No. At least, one of them is not. His heart beats. Yes, he's trying to say something." Philip stooped low, and the light of the lantern fell on this man's face. "I don't know him—or—why, it's Bendibow!"

Marion caught her breath sharply. "Sir Francis?"

"No, no--Tom Bendibow."

Marion said nothing, but knelt down beside the man, which was lying prostrate, and turned it over, so that the face was revealed. It was Mr. Grant, and he was dead, shot through the heart. After a few moments she looked up at Philip with a huskily:

"You should have fired at him."

(To be continued.)

a casual traveller, a couple of days suffice to visit the chief points of interest near Alexandria, while a week becomes wearisome in that modernised city. So at least it seemed to us we were glad when the hour arrived to start for Cairo.

There certainly is not much romance nowadays in crossing the desert, but, on the whole, perhaps a railway carriage is preferable to a camel's back, and twelve hours are perhaps sufficient to draw the eye to a dead monotonous flat of sand, sand, sand—on a broad extent of hard pebbly ground, like asphaltic pavement, so highly polished by the incessant friction of the sand, which through the ages has been for ever blowing over it, that each pebble glitters in the sunlight, like fragments of broken mirror—then sand again, broken up by such stunted shrubs as hardly deserve the name of vegetation, though somehow the poor lean camels scent them out by their smell, and here and there we saw a group, scarcely to be distinguished from the sandy world around them, contriving to pick up a scanty living in the desert.

On that hungry land we looked with reverence at their humps, wondering how they are divided into cells, each containing a little store of fat, which in time of starvation is drawn into the stomach, and nourishes the camel, so that at the end of a long march he may be in good enough condition, though his hump has almost shrunk away.

The wonderful cistern stomach is provided with similar cells, ~~these~~ something like honey-comb, which act as a reservoir of

in the desert. First we were on the edge of beautiful marshes along whose reedy shores various sportsmen were to be seen. Teal, widgeon, and all manner of water-fowl. Sandpeeps assemble here in incredible numbers, while tall cranes and rosy flamingoes stalk along the shallows. Lotus flowers blossom near the water, and the quaint Egyptian gardens grows here abundantly. The Egyptian water-lily is quite lovely; silky, silvery plumes with sharp leaves shimmering as they wave in the light. For miles of low, sedgy ground where the tall reeds were tossing their feathery heads so joyously in the breeze.

Egyptian reeds of course suggest the old papyrus "paper factories," which once existed at every town in the country, each factory having its own specialty by which it was known—some producing sheets of paper more than three feet long. Is it not strange in these days of cheap stationery and paper time when both parchment and papyrus had become so exorbitantly expensive, that both Greeks and Romans had the habit of using a palimpsest, which was simply some parchment with the former writing erased? Thus countless works of art now celebrated, and whose every word is held in high repute in the nineteenth century, were ruthlessly destroyed by their countrymen. Verily those prophets lacked honour!

Many were the expedients resorted to by the Egyptians for the supply of writing materials. There was no scarcity of broken pots and crockery of all sorts, which are so abundant in eastern towns, proved the first suggestion for such cheap writing slates as we now use; and bits of smooth stone or tile were constantly used for this purpose, and remain to this day. Some of the ancient tiles thus scribbled on (such tiles as that which was commanded to portray the city of Jerusalem) have been found in many places. The island of Elephantine on the Nile have furnished more than a hundred specimens of these tiles, which are now in various museums. One of these tiles has the leave of absence, scribbled on a fragment of an old papyrus, little those scribes and accountants foresaw the interest which their learned descendants of the barbarians of the Isles would treasure their rough notes!

Still quaintest were the writing materials of the Egyptians who, before the time of Mahomet, used to carve their notes on the shoulder-blades of sheep; these "sheep-bone char-

ink, with gold borders, and many coloured decorations. Precious MSS. were anointed with the oil of cedar to preserve them from moths. We hear of one such in which the name of the owner is adorned with garlands of tulips and carnations painted in various colours. Still more precious was the silky paper of the book, powdered with gold and silver dust, whereon were painted various designs and arabesques, while the whole book was perfumed with attar of rose and the essence of sandal-wood.

The demand for writing materials one may form some faint idea of from the vast MSS. libraries of which records have been preserved, as having been collected by the Caliphs, both of the East and West, the former in Bagdad—the latter in Andalusia—where there were eighty great public libraries, besides that vast one at Cordova. We also hear of private libraries, such as that of a nobleman, who declined an invitation from the Sultan of Bokhara, because the carriage of his books would have required four hundred mules.

If all the physicians of Bagdad were equally literary, the city could scarcely have contained their books, as we hear that the medical brotherhood numbered eight hundred and sixty licensed practitioners.

The Nile next passed by fertile ground, marking where the influence of the precious Nile waters had been. On every small hillock is invariably found a native village, a mere cluster of square, flat-roofed, mud walls built with unbaked bricks, dried in the sun, and perhaps whitewashed, and covered with green leaves, cucumbers, and gourds. As the inundations commence, they become a refuge for all the animals of terrified reptiles; legions of ants, cockroaches, and scorpions, toads, centipedes, snakes, all come in swarms to the homes of the luckless villagers. Should the inundation be more degrees higher than usual, the chances are that half the huts will dissolve themselves into their pristine mud, and produce a soil more fertile than what Father Nile himself bestows.

I believe that in this "land of Egypt, where there is no rain," the Nile flows in great measure supply the lack, and when the Arabs wish to raise a plantation of young date palms, they frequently plant a young tree in an earthenware jar, thus keeping a cool hollow around its tender roots, where the dew may collect. Of course,

however, every such group of palms in the arid desert is a sign of water beneath the surface, and you may be certain that the people have digged themselves a well, beside which their flocks may rest.

These Eastern wells are perpetual reminders of scripture; indeed, at every turn we come on countless illustrations of the words, till one by one becomes associated with some scene and place, forming themselves into mental pictures.

The marriage processions; the funeral at the grave when the uncoffined dead lies on the open bier, when the fancy he might sit up and speak; the groups that come to you—a mother and child riding an ass or a mule, with the mother walks carefully beside it; oftener the patient little bear of a stately Oriental in flowing raiment, while his attendant carries a bunch of branches of palm or reeds or green sugar-cane. We saw these groups on this very morning, and we read the gospel text of the entry into Jerusalem, and the lessons which speak of the fig-tree and a vineyard, and “a lodge in a garden of cucumbers,” were actually whirling past them. We saw the same watch-towers in every corner of the Indian fields.

Every here and there we saw the old threshing machine, the smooth dried mud, whereon the sheaves are laid, and the oxen tread out the corn, dragging a sort of roller. The chaff is shaken against the wind and so winnowed, the chaff blown away. The two women grinding at the mill is a sight of daily recurrence—a little hand mill something like that used in the West Indies. Another verse which quickly explains itself is “up thy bed and walk”—the bed being generally the same as the mat, which acts as a heavy blanket cloak throughout the day, keeping out the sun's rays as effectually as the night dews. This was the law which the Jews were forbidden to detain after sundown, and which was in pledge from their poor brother, else “wherein should ye sleep?” The flat-roofed houses, where at sunrise and sunset you see the people kneeling with their faces towards Mecca or towards Jerusalem, are also suggestive. So are even the piles of broken crockery and earthen pots out on these same roofs, where all day long the doves ‘peep’ cooing, nestling, and fluttering until sunset, when they rise like a cloud, and their wings gleam like silver, and the sun sets in the clear pure light of the after-glow.

The runners who clear the road before great meetings, and their words equivalent to “Prepare ye the way”; and so on, when the royal guests of the Khedive were to be taken

midst, the old order was given to "make straight in the highway"—and very straight it was made, with trees on to give shadow to all future travellers.

The command to put off the shoes before treading on holy ground is perpetually brought to our memory, as the sacred courts may be trodden barefoot.

At "unequal yoking" which the Levitical law in mercy forbids, thou shalt not plough with an ox and an ass together," a better illustration could scarcely be imagined than to see a small ass yoked together; the latter looks so ludicrously out of proportion to his tall brother (a full-grown dromedary standing 12 feet, while it raises its head to about 9 feet). Oxen and asses together look natural enough; besides, we are more accustomed to such a combination, even in Britain.

A camel and a bullock, or a mule and a buffalo, are always seen. A camel in any case looks out of place when employed for heavy work, his nature being so entirely to carry, not to pull. It is a curious sight to see these great creatures kneel down under their burden, and the indignant way in which they look round at their wicked teeth if they consider they are being overladen. They do grunt and roar! Sometimes we have had them beside our tents all night, and very wearisome neighbours they were. We could not help thinking of Job and his six thousand camels, besides all the other flocks and herds, and we came to the conclusion that a patriarchal life might have its disadvantages as well as its pleasures.

Along the main line of railway at Benna, a branch line carried through the land of Goshen, by the banks of the broad old Nile, through luscious fields of rich corn or green pastures, where happy flocks graze beside still waters, with here and there the deep shade of dark mulberry gardens. The villages, too, are different from those near the Delta, containing multitudes of large conical mud towers, which are called *minarets*. Their formation is curious. A vast number of

and it is the only way in which it is available as a source for the field of...

...the ground level valley, then a stilet was... the crossing light—this we took... the monster. The last crazy spear is covered by... the clouds, as it does above... later we found ourselves...

...the monster a group of these purple Forms were... the ground level valley, then a stilet was... the crossing light—this we took... the monster. The last crazy spear is covered by... the clouds, as it does above... later we found ourselves... A strange combination—the... four thousand years ago Abraham and... now dwarfed for the world... of the last age. Those, so still and solemn... of the boundless desert... in a busy, bustling, modern quarter...

...of the nineteenth century balloons may seem no new thing... to think of one which fell... of Charlemagne, and to picture the stormy... the lockless skymen, who were... to devastate the land, and only saved... by the intervention of the more enlightened Bishop Agilard.

And it is no story of yesterday that told how a cunning Jesuit worked on the terrors of the Indians who had captured his fellows. He constructed a huge dragon of paper, and (having warned the Indians that unless the prisoners were released the wrath of Heaven would descend on them) he fastened within it a composition of sulphur, pitch, and wax, then sent the gruesome beast floating heavenward, vomiting fire as it rose. The terrified Indians freed the Jesuits, and recognised the divine forgiveness, when the dragon fluttered and trembled and vanished in a flash of fire.

But these old balloons are but as infants in such a Presence as in which we now stood, and, as to the monster before us, he was a very latest importation from Paris. Nevertheless, perhaps, just for a while, the contrast helped, rather than jarred on the mind.

After all, this specimen of modern science was quite in keeping with the semi-Europeanised modern Cairo. We had come here

wonders of equestrianism to be seen in the circus, the theatre, or the opera, French and Italian-looking newest Parisian upholstery, English carriages—in short, of familiar objects, by no means in keeping with our *el Kahireh* (the Victorious).

Every name *Mesr*, by which the Arabs still call the old *dim* (in memory of Noah's grandson), and the modern *in*, by which the Copts know Cairo, carried us back far *ays* of the patriarchs, so we felt that we must forthwith bazaars, and, once there, diverge into all manner of *ous*, labyrinthine streets, in order to be transported to the Arabian Nights.

But, however, modern improvements are rapidly tending away by artistic beauties from these centres of delight. When first introduced modern European carriages, many striking old houses had to be pulled down, and the road, before he could drive through the main thoroughfares. Even now men must run before a carriage to clear the way; they carry lighted torches in an iron framework, and a *aque* they look. In the daylight they merely carry a *ick*, which they lay about them freely, without respect to the *r* in the long narrow streets you can almost touch the *er* side, and foot passengers must jostle into shops, or *nselves* as much as possible, to prevent being run over; *estern* lands, where might makes right. of course the

its long neck from side to side; and opening its ugly mouth, showing such savage teeth and looks so thoroughly ill-tempered that you feel no wish to risk a bite. Then it roars and bellows and makes the place hideous with its outcry; and in the end it generally succeeds in compelling its driver to unload it, and divide its burden with a more willing or less weary brother.

The bazaars are in some respects different from those where we lingered so long, in Alexandria. They are partially boarded over to afford a cool, grateful shade, and you look up between the rough planks and see the deep blue sky; everything seems more sleepy—shop-keepers, sentinels, guards, all alike seem to lounge in happy indolence, smoking or gossiping and drinking coffee, the liveliest day.

The only energetic creatures are the patient, active little donkeys with their gay scarlet saddles, and the wide-awake little Arabs who own them, and who must be possessed of amazing lungs and wind, as from dawn till sunset they never cease running and vociferating with shrill guttural cries at the top of their most unmelodious voices.

Every few minutes you meet a group of native ladies, closely veiled, with the white muslin, or black silk yashmak; and a group of attendants. They ride astride—their donkey decked with tassels and all manner of gay trappings; and as they pass, every man, with a proper sense of decorum, averts his face, lest his eyes should rest on so much veiled loveliness. Even the working drudges, who are often elaborately tattooed, are equally strict in keeping their faces virtuously covered, though the rest of their drapery may be carried up or blown about in such style as scarcely suits our notions of decency.

The same thing continually strikes one among the Hindoo women, who would be eternally disgraced by the faintest approximation to our ordinary evening toilette, but who have no manner of objection to displaying a wide "lucid interval" between the arm and the waist, and any amount of unstockinged ankle! I remember a Hindoo gentleman remarking that on his first visit to a London drawing-room he wished he could have hidden himself anywhere, and felt so shocked at the company in which he found himself. (A somewhat similar comment was made by a young Highland lad at a harvest home, which was always attended by the laird's daughter.) On one occasion a friend accompanied them, very much interested, and as she sat at the end of the room among the evergreens, she gazed in open-mouthed admiration, till the lady rose, and when

must be some such lingering tradition of Oriental fashion
makes the Jews wear their hats in the Synagogue even in
lands.

), whereas our poor folk in Scotland, even smart lassies
sonnets, will rarely put on their shoes and stockings till
far the kirk, or "the big hoose," no Hindoo or Mahometan
best rank would enter your drawing-room, or any temple, or
with his slippers on—the dust of the outer world must not
of dwelling worthy of honour. At the same time, you con-
both Arabs and Hindoos carrying their shoes in their
en marching on flat ground, both in order to save them
facilitate their own progress; they are all good walkers, and
is observed that such civilised annoyances as afford employ-
the chiropodist fraternity are utterly unknown to their
bird-soled feet.

How curious it would be to see Englishmen swearing
friendship over an exchange of hats; but with these men, an
of turbans (especially if they should be the green turbans
is the most sacred token of inviolable friendship.

Turn to the bazaar, with its heavy perfume of spices, and
of narghiles, its camels and donkeys, veiled figures, and
mental existence, more especially as seen in oft-recurring
stately cross-legged smokers, men of imperturbable gravity,
of drapery and patriarchal beards, who sit for hours breath-
ing to some old Arabic romance, from the lips of a

chance customer will quietly wait, and smoke a chibouque (*i.e.* a pipe with a long cherry stick) with some neighbour—or, should he be in a hurry, the owner of the next shop will come forward to serve him, when it is to be hoped the owner of the goods may not find his attention distracted by the dread of too easy a bargain being struck. If he prefers worshipping in the mosque, he need only hang a net before his shop till he returns—no one would be so sacrilegious as to touch anything.

Nothing strikes a new-comer more than this simple recognition of religion, at all times and in all places—all life seeming imbued with a constant reference to the presence of God. In every greeting, every gift, every common action of life, all acknowledge His presence.

Even in killing animals for food, certain ceremonies must be observed; and the fatal blow is struck "In the name of God, the most great," sometimes with the addition of such words as "Give me patience to endure the pain which He hath allotted thee!" Some of the more ignorant use the common formula, which is for ever on their lips, "In the name of God the Compassionate the Most Merciful." This is, however, forbidden, as being inappropriate to the occasion. No Mohammedan dare eat of any creature which has been killed without these formulas. It is unlawful for this reason, no Mohammedan servant will ever touch the prepared meats which come from England, as he can have no proof of having been lawfully slain. Neither will he eat of things shot, unless he can run up in time to cut the throat and let the blood flow before the creature dies.

In fact, the life of a good Moslem seems all interwoven with forms and ceremonies, and the law of the Koran or some of its sacred words seem for ever on his lips, mixing most freely with all secular matters. No action, however trivial, may be committed without commending it to Allah. A Mohammedan will not light a lamp without blessing the name of the Prophet. Even the cries of the street hawkers bring in frequent allusions to a spiritual market, as when the poor water-carrier offers a cup of cool refreshing drink to all passers-by, crying aloud, "Oh! may God reward me!" Whatever be the matter in hand, one of the company certainly utter some such reminder as "Semmo," and his friend will reply "Bismillah," meaning, in the Name of God.

In truth, the fatalism of which we hear so much seems to be else than a strong faith; a power of living calmly as in the presence of God (just as the strongest practical characteristic of the poor Hindoo's faith seems to be a simple submission to the will of the Almighty, under whatever name he may recognise Him).

speaking of this continual allusion to the providence of
tions that no Moslem will speak of any future event or
hout adding, "If it be the will of God." He explains
of the night-watchman, whose deep-toned voices resound
ie dark hours. One man cries, "O Lord! O Everlasting!"
ays, "I extol the perfection of the living King, who sleepeth
eth."

Is too of a mode of entertaining a party of guests in Cairo
ital of a *khatmeh*, which means the whole of the Koran
y men hired for the occasion! Just imagine inviting a
ondon to hear the whole Bible chanted as a pastime, with
paniment of pipes and coffee! Mr. Lane also speaks of
ence with which the Holy Book is treated—always placed
high, clean place, where no other book or anything else
id above it. He attributes the Mohammedans' dislike to
eir sacred books to the dread lest impurity should attach
the paper, or, above all, lest the ink should be applied to
Name with a brush made of hog's bristles. Worse than
ok, becoming thus common, is in double danger of being
by infidels.

dread of dishonouring sacred names extends even to the
le titles of the Prophet and the names of those near of kin
Thus one man will refuse to stamp his name upon his
s because it bears one of the names of the Prophet, which
he made to pass through the fire. Another man, I see

One of these curious gateways, the Gate of the Metwallis, close to the Saddle market, I one day took my stand for a whole forenoon. My words, our good old dragoman, Mohammed Sheikh, made me draw up just opposite the gateway, so as to command a first-rate (a first-rate position). An English policeman would certainly have considered such an obstruction in a crowded thoroughfare to move on, but we were in the East, where the invariable courtesy accorded to the English is boundless, so no remonstrance was made, and I was left in a position to watch that strangely varied and interesting panorama, the memory of which is an abiding delight. Even now I have but to close my eyes, and, banishing grey England, can recall that living microscope of ever-changing light, sound, and colour.

The hackney, who hated sight-seeing, used to say that a man would get a better insight into the manners and customs of a new country by strolling himself like a beggar at some corner, and watching the common life of the day, than the most active curiosity-hunter would obtain by elaborate and wearisome researches.

The artist has just the same advantage as the beggar; after the first few minutes, curiosity about him and his work generally subsides, and the stream of life flows quietly past him. Even in London it only requires a moderate amount of good-natured tact to convert the most scampish-looking big boy into a special constable, who shall keep all the others in order, and be proud of his office of inspector to a lady.

To return to the Metwallis. It is a strong gateway between the minarets of a mosque of the same name, with a huge heavy door, ready to close in time of danger. Over it hang massive iron balls which look like some playthings of the giants, but are really only huge rusty chain shot, memorials of the siege. As you look through the archway and down the picturesque street, you catch a glimpse of the mosque on the one side, while the other is all built irregularly with projecting upper stories, carved wooden balconies overhanging the street, all curiously wrought with rich patterns of tracery, veiling those mysterious unglazed casements. Just beyond the gate is a splendidly painted fountain, where donkey-boys and stately Arabs in long cloaks of camel's hair stop to drink. Close by are open booths and stalls, and the street is crowded with every phase of Eastern life—trains of camels, tall dromedaries laden with a huge burden of living green sugar-cane, donkeys half hidden by their load of green grass for forage, women in dark blue yashmaks, carrying on their heads their graceful double-handled water jars or baskets of fruit; and, among the *many ladies, the pride of the harem*, donkey-riding, just like the

patriarchal Turks. And all this ever-changing life and colour comes pressing along through the great gateway where we have halted.

Another of these busy portals is the Bab Zooayley, which stands between two minarets, and is supposed to be haunted by the presence of the Kuth, who is the most holy of the Walees, or saints. People tormented by toothache drive a nail into this door to chase away pain; and victims of toothache will sometimes actually draw a tooth and hang it up in some crevice of the wall, in the same hope. On this gate were formerly exhibited the heads of criminals; but this practice has been discontinued in Cairo, as well as in London, and the massacre of the Mamelukes afforded the latest decoration in this style.

This is not the only place supposed to be haunted by evil spirits. The Jinns, or Genii, still amuse themselves by teasing peaceable householders, and find their way into private dwellings. They are supposed to be imprisoned during the forty days of Ramazan, but at the close of that holy season they recommence their pranks; so the women sprinkle salt upon the floors of their rooms, in the Name of God, the Most Merciful, and they suppose that this will prevent the evil spirits from entering.

In the desolate, forsaken suburbs are ancient tombs and ruined mosques without number. These are the abode of the Effrits, some of whom are evil Genii, others the ghosts of the unhappy dead. One touch from the shadowy finger of an Effrit would leave his human victim a howling, hopeless demoniac; so it must be a bold man who will face such danger at mystic hours of night, or in divers phases of the moon.

Some years ago, Mr. Lane (the Arabic scholar) and his sister Mrs. Poole, occupied one of these haunted houses, and published an extraordinary account of the marvellous sights and sounds, which made all their servants leave, and finally compelled themselves to follow suit, but which could never be in any wise accounted for. They knew the tradition of the treacherous murder which clung to the house, and they heard fearful shrieks, groans, yells resounding in their ears, and their servants vowed that again and again they beheld "the accursed," in visible form, pass from room to room. On one occasion the accursed was shot, and Mrs. Poole declared that the agonising scuffling and groaning that ensued made her rush to see what human being was dying. The servant who had fired the shot was shouting for aid, but all that was found beside the bullet was a lump of burnt cinder, resembling the sole of a shoe, which all the Arabs declared to be the invariable relic left when a devil

ed. The mystery was never cleared up, and the legion of increased their antics tenfold, to avenge their injured brother, last they succeeded in driving out all human beings, and by undisturbed possession of the house!

In the ear of a Highlander there is a singular similarity between the word "Effrit," or "Iffrit," and the Gaelic word "Iffrin," meaning the grave—the place of departed spirits.

These Effrits, or evil Genii, are supposed to be created of fire, while the good angels are emanations of light. Yet when these fire-spirits venture too near the confines of the lowest heaven, the weapons wherewith the angels chase them away are hurled from the celestial altars, and men beholding these falling lights believe that they are falling stars, and sometimes even a charred fragment, which they call meteoric stones, showing little they know about it.

These Effrits can assume either human or animal form; and though they can wander at will through earth and sky, their favourite haunts are among the ruins, so no Arab will approach these without uttering certain words of homage to these spirits, acknowledging their power; at the same time they specially commit themselves, and each what they possess, to the care of God the Most Merciful. His name, with the ninety-nine divine attributes, is their favourite invocation, and the paper on which it is written is carried in a metal or iron amulet case. Some prefer the ninety-nine titles of the Prophet, or a few words from the Koran; but he who bears the name of the Almighty secures the protection of each, according to need.

The most commonest of all amulets is a silver ring inscribed with holy Arabic, silver having been declared by the Prophet to be preferable to gold. But the simplest of all the means of averting evil is to spit three times over the left shoulder, of course pronouncing the Holy Name.

This is the invariable custom of one who awakens from an opium sleep.

There is not an action in life that is not fraught with more or less danger from evil spirits; but the terror ever present to the Egyptian is that of the Evil Eye. Every admiring glance cast on what belongs to them is actually a pang, so certain is it that some mischief will ensue. It would not even be safe for a man to behold his own face in a looking-glass without blessing the name of the Prophet, lest his unconscious admiration of himself should work mischief. Should a stranger, ignorant of this custom, praise anything they hold, he is at once requested to repeat certain words of invocation, which may avert the probable calamity.

Most especially does this dread apply to children. The neatest, cleanest Egyptian lady, whose own raiment is of the purest purity, followed by her own little ones, who are purposely dressed so as to attract less attention. Sometimes small children are dressed as girls, so as to excite less envy. A mother who is less, fears that her child has been admired, will at sunrise burn a fragment of its dress, burn it with a little salt and alum, and give her child with the ashes, having first fumigated it with frankincense.

Many counter-charms are commonly used. A favourite remedy is to burn alum while reciting chapters of the Koran. The charms surely take the form of the envious person, and this must be powdered and mixed with food, and so given to the dog!

A little alum, or a few cowrie shells worn about the neck, is said to prevent this evil; and this is the reason why so many trappings and camels are all trimmed with cowrie shells.

Perhaps the most curious thing of all is to hear of men who are so afraid that they would sooner eat poison than taste the fat meat from the butchers' shops, lest any hungry beggar should have coveted it. They prefer going to distant shops, where they are concealed from the passers-by. Only think of the row of shops outside some fashionable confectioner's shop; imagine how the ices are so much poison by reason of the envious by-standers. Wretched beggars who stand watching the pretty ladies as they pass their good things!

Amongst the curiosities of Cairo is an amateur benevolent Humane Society, for the especial benefit of poor Puss. A large legacy was some years ago left by a wealthy burgher to the Cadi, on condition of his not cherishing all the unclaimed cats in Cairo. Like most Mohammedans he must have shared the feeling which made the Prophet's wide sleeve of his robe, sooner than disturb a favourite cat, fallen asleep thereon. Consequently a large courtyard was devoted to their especial benefit; and here the "nice, soft creatures" lie and bask in the sun, and are fed at stated intervals. Altogether have a very good time of it. It is a curious fact that, although daily additions are made to this large felicitous inmates rarely amount to more than fifty. This (in the sausage machines) is a very remarkable problem. I suppose a candidate for the office of Cadi has to produce a medical certificate to prove that he is not troubled with that unconquerable aversion to old Puss with which so many of the masculine genus are

and, crazy with delight, issued cards of invitation to all acquaintances, and very soon the army of cats, each more mad than his neighbour, were dancing and scrambling, fighting and fighting, till the barbarian with the musical ear-rack was tearing his head in frenzy nearly as wild as the cats. His neighbour was so delighted at the success of his little joke that his headache was cured. Meanwhile a shower of rain washed the valerian into the street below. Then everyone who walked across the court picked up particles thereof on the soles of his feet; and the cats, in their way upstairs by scores, even into the chambers of the valiant, who, on the whole, was very fairly punished.

It seems to have the same affection for very young nemophila, and lie down and roll on it in the most aggravating way. The affection of cats, is it not startling to hear that the cats of London—household pets—are said to number three hundred thousand, and by what sort of calculation for houseless wanderers, whose nasal turbs disturb nocturnal peace? The amount annually spent on the purchase of horse-flesh from the cats' meat men of London is said to be £1000! This, according to vulgar notions, should be a proof of the affection of elderly spinsters, who are generally supposed to have a peculiarly strong affection for feline affections. The great cat show held in London some years ago, however, betrayed a very different state of domestic affection, the male exhibitors being so numerous and so successful that they carried off thirty-two prizes; fifteen more were secured by the female exhibitors, while to the much maligned old maids there were

entirely by her own limited means, and whose daily usefulness is often checked simply for lack of common such as sewing materials, silks, worsteds, and such matters.

As regards Mohammedan learning in Africa, we are headquarters. One great university is attached to the El Ezher, where two thousand students receive instruction in Oriental lore. The one punishment for all manner of lesson mislearnt to more heinous offences, is the invariable that is, beating the culprit with a stick on the soles of the more or less severity.

This is the punishment awarded by the Prophet to a child who, at the age of ten years, refuses to pray. Hence that all children be taught to pray at seven, so they have to think about it before the beating process begins. This curious method, is it not, of awakening heavenward as the connection of *sole* with *soul* being by no means apparent.

To me it was suggestive of a somewhat similar course of instruction which we all underwent in our young days; of a determined Swiss "bonne," whose short method of youth was simple and rapid. About the third mistake an invariable thump in the small of the back, which sent us to the other side of the room, where we were generally over a substantial brown Bible—a handy missile and effectual, by a strong Swiss arm. It was an external application of truth with which we would gladly have dispensed; nevertheless a fine old lady held her ground with her pupils, and I honestly preferred her hot temper to most people's sugar. Her teaching mellowed with age (when her bump of common likewise developed), so that her children of the third generation reared on a strictly commonplace system, and can have a conversation in common with the little followers of the Prophet.

anyone dreaming of going there, all manner of objections were urged; the chief of which was the necessity of procuring a passport from certain officials, as the powder magazines lay just beyond the pass.

This pass, as I was well aware, might possibly have been procured after a full week's delay; so it seemed far more rapid and easy (as it is in nine cases out of ten in non-official life) to act without it and ask leave afterwards.

To the great disgust of my dragoman, poor old Sheik, he had to perform his troublesome charge up the long, steep, rocky road to the top of the crag. We glanced somewhat nervously at our beleaguered powder magazine—but it was so early in the morning that there was no sign of life about it, and we passed on to the desired spot without molestation, and there spent the livelong day, watching the ever-changing beauty of that strange picture.

At first it was all blended amethyst and emerald, with only a soft light on the windings of old Father Nile, patriarch of the valley. Then, as the purple shadows rolled away, the green valley lay clearly defined, cutting with hard clear line against the yellow sands on either side; the wilderness of tombs far below us, or the Libyan desert beyond, where, faintly seen through hot haze, yet unmistakable in their sharp outline, lie those grand simple forms, the pyramids of Gizeh.

Farther up, too, mark another wilderness of tombs, for all the soil is honeycombed into one vast sepulchre, where kings, princes, and nobles have vainly sought an undisturbed repose. Their vexatious dust has long since been converted into pills and potions for the ailing Europeans; and of their nameless graves little is known, save that the stern warder, who keeps the key of dateless secrets under his arm, and keeps them well. As your eye wanders up the desert, among groups of lesser pyramids at Dashour and Sakkara, there still remain remains of sixty-nine of these, of divers form—one being composed of five distinct terraces—and of every size; from the merest heap of stones, loosely heaped together, over the tomb of the poor; to the perfect structure, whether small or great, which marks where richer members of the community slept their last sleep.

The majority of these are built of the crude brick, baked in the sun, and are far more recent works than the giants at Gizeh. It is said that some of these may have been among the labours of the Egyptian elites to which Josephus alluded when, speaking of their military taskmasters, he says, "They put them to the draining of rivers into channels, walling of towns, casting up of dykes

and banks to keep off inundations; nay, *the erecting pyramids.*"

Scientific men are able in these old bricks to distinguish from wheat straw, or bean halm from stubble. One Dashour has been especially noted, its bricks being without straw, just the merest indications thereof, as the time of some strange scarcity—like that when the Israelites used stubble instead of straw. An old wall of precisely the same was found at Heliopolis, five miles below Cairo—each brick bore the cartouche or royal mark of Thothmes III., who is supposed to be the Pharaoh of the Exodus; a supposition confirmed by monumental hieroglyphics bear strange testimony in utterance of his name from all sepulchral records, thereby corroborating the theory of his having shared, with his great army, their silent tomb beneath the waters of the Red Sea.

It is said that the Egyptians religiously avoided anything whatever evil might befall their kings; and it is very remarkable that no monuments should have been found to all the other Pharaohs, the stones that chronicle this man's actions both before and after his death without any mention of his death. Moreover, while his brethren were succeeded each by his eldest son, it is stated that *he* was succeeded by his second son—while the "first-born" is altogether ignored.

Those Pyramids of Sakkara are a fair landmark of the city which once stood Memphis (the Noph of still older days), which, in its destruction, and that of her images, had so long been foretold. This "rejoicing city that dwelt carelessly" retained its splendour till A.D. 641, when it was finally destroyed. The Arabs who found the gorgeous city of palaces and temples so ruined, used the quarry for themselves when building Cairo, that small remains remain. In a palm wood at some distance from the city, a colossal statue lies on its face half buried in the earth.

than a calf, and a calf was the size of a dog. These
imals have, of course, all been removed; only about thirty
k, empty sarcophagi are still to be seen.
catacombs were entirely filled with the mummies of the
bis, and sacred cats and dogs, hawks, and mice and
h of which was neatly strapped up in linen, and placed in
enware jar, sealed up, and packed to the very roof, like
some vast wine cellar, so stowed, tier behind tier, and
tier, that no estimate of their multitude could be made;
they lay, in tens of thousands, seeming as if it must have
uries to accumulate so vast a multitude. These catacombs
endless galleries, opening into chamber after chamber,
interminable, some of them being very large caves, yet all
ly packed as in some vast storehouse. On breaking an
e bird is found with its long legs folded beside the body.
s said to have been held sacred on account of the delicate
grey plumage which was supposed to symbolize the light
of moonlight. It was also held to be emblematic of
ch is remarkable, inasmuch as the Jews held the ibis to be
a bird. In these catacombs there were also found jars of
s, likewise mummied, and supposed to be those of the ibis.
e farther lay the crocodile mummy pits, to which various
have penetrated, notwithstanding the frightfully bad, stifling
e they found a vast army of crocodiles of all sizes, from the
inches long to the patriarch measuring twelve feet each

without number, just lying, as they probably have lain 3000 years. Mummied snakes were also found here. The crocodiles, however, were not worshipped in all cities. Those who worshipped the crocodile-headed god Savak had frequently to fight his neighbours who refused him reverence and injured the denizens of the Nile. For instance, the people of Hieroglyphic instead of worshipping, considered the crocodile a choicest dish for the table. True believers kept these creatures tame and fed them. The great Crocodile City near the artificial lake Moëris. The crocodile cake, and mulled wine were among the dainties presented to their sacred throats. They had rings of gold and pearls in their ears, which were pierced like a woman's, and they were adorned with bracelets. When Egypt was conquered by the Romans, these pets were transferred to artificial lakes, for their reception, and in one day thirty-six of them were made to fight as gladiators in the amphitheatre.

It is strange to find the same homage still rendered to these grisly monsters by the Hindoos of the present day. The Pier, eight miles from Kurrachee, in the middle of a vast desert, is a grove of tamarind trees, beneath which, about a mile from the grove, of these grotesque creatures lie in a marshy pool; their heads looking so temptingly like stepping-stones, that young boys are said occasionally to amuse itself by walking right across the pool, stepping from one back, to the next!

The guardian of these weird reptiles is an old, gaunt man, who, waving his wand, summons the spirits from their lairs, whereupon rows of gaping jaws (fine open countenances) and the grinning monsters slowly emerge at the bidding of the master, and lie down flat at his feet, waiting in expectation of food which is thrown to them, and which they tear up with their mouths. They are of all sizes up to twenty feet. Half a mile from the Pier are warm springs and another pool, also full of "Muggers."

Is it not curious to think that in the London basin countless remains should have been found, in the Catacombs, of every species of this crocodilian race, though the crocodile exists in Europe, and the habitats of the three chief varieties are widely separated—thousands of miles of land and ocean between each!

To return to the Catacombs of Memphis. Of course the contents of these pits have been ruthlessly rifled of their contents. The fate of the human mummy cases which have been so carelessly broken open in search of treasure; skeletons, heaps of

he painted coffin, linen, aromatic gums, now lie heaped in grotesque confusion in these neglected charnel-houses.

reverent manner in which the Arabs knock about these monuments of humanity is revolting indeed. One lady has her disgust at seeing her dragoman coolly wrench off the mummy which she had been examining ; while the sycard of the old coffins was considered by travellers and their to be fair fuel for their camp fires. One of our own friends to having carried off a mummy's skull—a grinning thing—and rejoiced in the thought that he might have stumbled had of Euclid himself. No fewer than fourteen heads were him in one day by commercial Arabs.

ancient Egyptians believed that after three thousand years d return to their bodies, and hence desired to find them tombs suitable to their rank. Imagine the dismay of the Pharaohs could they now return to earth to find their geous tombs and temples desolate ruins, haunts of evil d birds of night ; and their own precious ashes either adcast over English fields (with due admixture of Peruvian or, at best, preserved in some museum, there to be to the vulgar gaze in company with mummies of every l in every stage of unrolling, from the gilded outer m to the poor blackened corpse wrapped in papyrus

greater would have been their horror could they have that degenerate Egyptians would first cut open their d bodies in search of saleable little images which might be herein, and would then kindle a fire with the highly ble fragments, and thereon heat their coffee !

Imagine such a scene as that which greeted Belzoni when, y years ago, he first effected an entrance into these strange s : crawling on hands and knees through passages several yards in length, in suffocating air and stifling effluvia, the ck and sand having well-nigh choked up the old galleries ; aching more open chambers, where the glimmering light of carried by naked Arabs, alone relieved the blackness of l revealed heaps of mummies in all directions. Choked , and exhausted by his exertions, he sought a resting-place. l none, save the body of an old Egyptian which crushed der beneath him. He stretched out his arms to relieve his nd sank altogether among broken mummies, with a crash rags, and wooden cases which raised such a dust that he

could neither see nor breathe. He tried to move on every step he crushed a mummy. From one chamber to another similar; then another, and yet another. He was choked with mummies. He could not pass without being in contact with that of some decayed Egyptian—and he found himself covered with bones; legs, arms, and heads from above. "Thus," he says, "I proceeded from chamber to chamber, all full of mummies, piled up in various positions, some lying, and some on their heads."

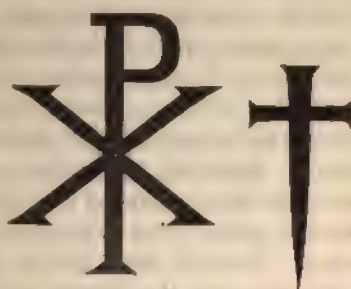
But after all, these were scarcely so strange and wonderful as the mummied crocodiles and holy cats and dogs, to say nothing of the beetles, who were worshipped during life and after death.

The marvellous phase of reverence which led to the adoration of the brute creation seems to have been the development of that faith which recognised all animal emanations from the Great Centre of life, and as there was within them a spark of the divine fire. For we must remember that the great central mystery of the Egyptian faith was that of One Supreme Being, whose name was unutterable, whose existence was revealed only to the priests, who jealously hid from the people all the direct knowledge of this their God. To the uninitiated he was only known by his attributes, and being deified, resulted in that bewildering jumble of myths and fables which make up the intricacies of the Egyptian religion. Second only in awful holiness to this Almighty Being, the name of the god who represented the embodiment of supreme goodness, whose name was also held in such reverential awe that the priests shrank from uttering it aloud.

And here we find one of those strange parallels which we meet everywhere which so often startle the student of ancient

judgment, were to bear his own name, men and women called Osiris—a spiritual name betokening their being members of his spiritual kingdom, and pure as its heaven-bitants. He is described as the “revealer of truth,” the “mer of grace,” the cousin of the day, the eldest son of the “full of grace and truth.” Strange coincidences these, indisputable, every scene of these legends being accurately on the very oldest Egyptian sculptures, where they must ted for centuries before the birth of Abraham. Strange the very monogram by which he is represented in these glyphs should be identical with that which ages long selected as that of our Lord, and which now adorns our churches.

the temple of Serapis at a was overthrown, this n was found carved on ations; a fact which was ly turned to account by stians, who endeavoured de the Gentiles that the n of the heathen temple to this buried symbol, the hour of need, thus ts supremacy. (Precisely combination of this monogram and cross was also the of Jupiter-Ammon.)



egend of Osiris goes on to say that his sepulchre was at the Cataract of the Nile, where for long centuries the and their people made devout pilgrimage; and thence year he still sends blessings to the thirsty land in the of the mighty river. Here still stands the temple of Isis, owing widow of Osiris, whose little child, Horus, is tic of life beyond the grave, and who sits for evermore d on a lotus blossom before the judgment throne of Osiris encouraging the spirits during their trial.

multitude of sacred birds and insects and beasts reminds story which used to delight us when we were children, w Cambyses captured an Egyptian seaport town by having rd of cats, bulls, dogs, and all manner of animals, at which aged dared not fling a dart lest they should injure their ‘bleating gods,’ as Milton calls them.
e, far below the *crag* whereon we stand, stretching away in

the boundless haze, lies the desert where those Persians perished. There, too, is the very spot where, at the foot of the pyramids, the Mameluke force awaited the advance of Napoleon, and there, in that little patch of shadow, his victorious general showed his wounded comrades to escape the burning glare, could he had reminded them) that forty centuries thence look upon their valour.

Farther to the right lies Heliopolis, once the Oxford of the world. It was a centre of learning where colleges and academies clustered round one sacerdotal college, so famed for the wisdom of its priests and the antiquity of its records that Herodotus came here in quest of ancient Egyptian lore, and Plato, having found his way here, lingered thirteen years before he departed for such congenial spirits. This doubtless was the place where Aristotle studied. It is supposed that this great shrine of the Sun, called Bethshemesh, or House of the Sun, with the great golden obelisk of which destruction of which was foretold by Jeremiah. On the top of the chief temple was placed a great mirror at such an angle as to reflect the full splendour of the meridian sun into the interior of the shrine. Moreover, Heliopolis is the On referred to which is told that Joseph married a daughter of the priest of On. It is thought probable that in this city the meeting with his brethren took place. Learned men tell us that the Pharaoh who acted so generously with the Hebrew strangers was that Osirtesen, or Sesostris of Thebes, whose name is found inscribed on the sole obelisk, and who also built the great temple at Karnac.

All else that now remains among the citron thickets to mark their former glory are some remains of broken sphinxes and the fragments of a colossal statue, which mark the site of a renowned temple dedicated to the bull Mnevis, and heaps of ancient brickwork in ruins. Formerly there were two artificial lakes fed by canals from the Nile, but these have shared in the curse pronounced by Isaiah (cha-

of later days is pointed out—namely, the cave where
family halted during the noon-day heat when seeking
gypt. Close by is a well, whose waters were once
t since that day they have been pure as the Nile itself.
hangs the well, and devout believers cherish its leaves
dust which clings to them!

is is supposed to have been originally the capital of
shepherd kings—chiefs of the Chaldean and Phœnician
who had overrun the country and made their profession
ion to the Egyptians. They were eventually driven out
ban kings, who beautified the land with those grand
obelisks, sphinxes and colossal statues, which remain to
onder to all people; and it was during this period that
of Israel came and settled in the rich land of Goshen.
kings held sway for about five hundred years. Then
big civil wars, the kings of Ethiopia having the mastery
then the kings of Sais ruled, with the help of Greece,
in sundry battles by Nebuchadnezzar and by Cyrus.

is next overran the country, and it became merely a
vince: the temples were plundered, the religion of the
set at nought, and they themselves were held in cruel
until the defeat of Darius at Marathon, when they
courage to rise and expel the enemy, who, however,
the charge, and continued the struggle till they them-
conquered by Alexander the Great, and Egypt became
an province, with Alexandria as its capital.

nd a thousand other changes have swept over the land
ay spread before us. The long shadows of evening were
ver the desert, and, having finished my drawing without
I returned to the crag below the powder magazine
the tombs of the Caliphs—another burial-place in the
re innumerable brown buildings with brown domes rise
t dry sand.

was forthwith challenged by the sentinel; but, as his
e at my presence rapidly changed to a petition for
there was no need to attend to either, and old Sheik
with him, while I watched the red sun sink like a ball of
the Pyramids; once more turning the broad river into
tarlet stream winding throughout the land—recalling the
of that dread miracle when, not in semblance only, but
b, the rivers and ponds and streams, and every pool of
ghout the land, and every drop of precious water in all

Looking down from my high perch on the broad plain before me, I could trace that gleaming river for many miles like a scarlet ribbon till it seemed to vanish in the purple overhung the Lybian desert. Not that the great river was its sole mirror. The whole valley was seamed with channel conduits, the veins and arteries of the land, and all transformed into blood-red streams; as when the Moabites rising up early in the morning and looking down upon the plain of Edom, beheld the sun reflected red as blood, on the water in Israel's newly made ditches (most marvellous warfare) believing it to be in truth the blood of the slain who had trampled one another, rushed headlong down thither to their own destruction.

Turning to descend the steep rocky path, we met parties toiling up the crag, laden with water-barrels containing a supply for the little garrison of the magazine. The people whose large splay feet seem created purposely to walk on the rocks with difficulty picking their way over the hard rocks.

On the following morning we drove through Old Cairo and reached a Coptic church more than a thousand years old. In the cave which was one of the resting-places of the Holy Family, the church I can only say that it evidently *is* very old and dingy and dirty and dreary. So was the poor old priest who showed us it to us. So were his wife and little daughter, who were above accepting our humble offerings.

The Copts are the descendants of the early Egyptian

Here too St. Athanasius found a refuge when fleeing from his foes, and was tended by a community of monks. For the Christians soon found it necessary to band themselves together in strong bodies, and while the great Lybian desert was positively honeycombed with the cells of a great multitude of anchorites, there were also monasteries where vast numbers of men or women lived useful lives, tilling the soil and teaching the ignorant. Some of these old monasteries remain to this day, though their light has become a very faint glimmer in the surrounding darkness.

This sudden fever for the life monastic overspread the land like a flood. It was the first reaction from the degenerate life of unutterable corruption, when the people, having reached the lowest conceivable depths of degradation, awoke at the preaching of repentance, and hurried to the opposite extreme, striving by any sacrifice to work out their own salvation. Thus we hear of one great city, formerly sacred to the fish Oxyrinchus, which became wholly monastic. All the great temples were converted into monasteries, wherein ten thousand monks and twenty thousand nuns found refuge; and they built twelve great Christian churches for their new worship. Sometimes, however, they merely adapted the old heathen art to Christian uses—as when in the temple of Assabona, in Nubia, the Christians plastered over the figure of one of the old gods, and painted in its place that of St. Peter, with his keys. The rest of the picture was left unchanged, so that Rameses II. is still to be seen presenting his offerings to the Christian apostle! Still more simple was it to transform Isis and Horus, the “Mother and Son” of Egypt, into an image meet for Christian reverence; indeed, it is supposed that the representation of the Virgin Mother standing as Queen of Heaven on the Crescent-Moon, was in the first instance suggested by the old paintings of Isis, who (in her character of dog-star) assumes this attitude.

In Memphis and Babylon (on the Nile) the whole population seem to have taken monastic vows, while they continued diligently to cultivate the soil. In one monastery, on an island near Thebes, there lived three thousand silent monks, whose vows forbade them ever to open their lips save in prayer. The convents had rules as diverse as their inmates. Some were useful, some were idle; some full of educated men, others of the most ignorant; some cleanly, but the majority foully dirty and illiterate; so that their pagan contemporaries declared them to be men in form only, but swine in manners; adding, that it was sufficient to wear a dark robe and dirty linen to acquire a reputation for sanctity.

Yet in the midst of their asceticism there was one joy of the life which they could not always forego; and the excitement horse-racing still drew even monks to the hippodrome, where people showed their creed by backing Pagan or Christian but not scrupling to use powers and superstitious ceremonies to add the speed of their own. The monk Hilarius, pupil of Anthony, is much praised for sprinkling holy water on the Christian horse in the hippodrome at Gaza, thereby enabling them to outrun the steed of the Pagans.

It has been a fertile subject for discussion whether this monastic life which now for the first time appears in Christian history) was borrowed directly from the example of the great Buddhist monasteries—which long ere this had numbered their inmates by hundreds of thousands—or whether a smaller sect, dwelling in Egypt first gave the first suggestion of this new life. This was the sect Therapeutae of which it is uncertain whether they were heathen philosophers or corrupt Jews who had borrowed mystical opinions and Jewish manners from the Egyptian priests in addition to their own creed. These men formed a monastic colony near Alexandria on a hill overlooking Lake Marcotis, where they lived in separate cottages (therein differing from the Essenes, the ascetic Jews of Palestine, who lived on the shores of the Dead Sea, but who did not quit the active duties of life). Here they devoted themselves to lives of contemplation and most rigorous asceticism, some having but three meals in the week, others fewer still. Even at their chief festival, when all dined together, their fare was only bread and water seasoned with salt and cresses. They met every seventh day for public worship; and on great festivals their sacred music was accompanied with solemn dances, which were continued till morning when they worshipped with faces turned towards the rising sun, and then dispersed, each to his solitary hut.

It is supposed that these customs were first introduced by certain classes of the Egyptian priesthood, who aimed at a solitary life spent in religious contemplation and hardness to the flesh, sleeping with only a wooden pillow, and existing on starvation diet. It is doubtless to prevent too close an assimilation to these that Athanasius forbade his monks to adopt the tonsure on the head, or to shave their beards, after the manner of the Egyptian priests.

But, through whichever channel this peculiar phase of thought first found its way to acceptance among Christians, there seems little doubt that it originated in the East, and that these hermits of the desert, who, fleeing from the wickedness they could not stem

and their lives to asceticism—striving by holy meditation to solve the riddles of life—did but follow in the footsteps of the Fakheers, whether Brahmin or Buddhist—notably those of the late Emperor himself, the young Hindoo prince, who lived his life of asceticism, the flesh, and the devil, eight hundred years before St. Anthony began the similar conflict in the Egyptian desert.

Traces of asceticism, however, may have arisen from no purely Christian source could there have arisen a sect as those patient Stylites, or hermits of the pillars; who, following the example of St. Simon, the Syrian anchorite, sought to reach his unclean sanctity! He, you remember, after living for penitential years on columns of divers height, at length took position on a mountain near Antioch, where he built himself a column sixty feet high, whence he never again descended till, after many years, his dead body was taken down with the reverence due to a holy man.

Through the bitter colds of winter and the burning heats of summer, in the calm sunshine or the stormy tempest, he never varied from his strange struggle "to merit heaven by making earth his bed."

Even at night he knew no rest, for there was not space on his column to lie down at length; and throughout the long and weary day he never ceased to change his devotional postures, with such rapidity that it seemed to the bystanders as though some mechanical machine were at work within that meagre skeleton. One day, more observant than the rest, counted twelve hundred and forty-four postures—bending the forehead to the feet—then desisted from his task through very weariness, and left the saint still toiling at his task.

It was the fame of this strange being that went forth and inspired many others to follow in his dreary path. Not that he was the inventor of this method of living nearer heaven than his fellow-men.

For centuries before he set up his column at Antioch, it was customary for the priest at the temple of Hierapolis on the Phrygian mountains to climb to the summit of one of the great pillars which stood in front of the temple, and there remain for seven days in communication with Heaven for all who brought him offerings as purchase-money for his intercessions. So Christianity cannot be taxed with having given birth to this eccentric phase of sanctity.

Among the curious phases of belief which sprang up amid this general upheaval of thought were those sects of Gnostics who tried to unite the new faith with the old magic and astrology. Strangest of all were the Ophites of Canaan and Egypt, who, as their name

The Serpent's Magazine.

...the serpent-worship. ...the first teacher of the knowledge of ... Christ Himself wh ... Therefore, at the celebr ... the serpent in a covered che ... If so doing he cl ... the consecrated ... All preser ... the head partook thereof ... by singing a hymn ... This is said ... of Delphi o

...the whole ceremony was be ... Isis, and Osiris, it ... whence th ... the vintages share ... of Bacchus all ... of the good dem ... the serpents. In the ten ... of gold and silver ... the serpent in the ... the identical serpent of ... was prob ... of these Ophite se

...into sects and ... by violent ... Consequer ... and when at ... there was no unite ... Crescent triumph

...the messenger Mahom ... Christian, it ... great credit to the ... of the d

...social persecutions to which th ... it was then ordained that th ... yellow turbans, to mark t ... of which was perm

ter horse or mule. Asses they might ride if they pleased, the tail. They might not enter a public bath without a bell round their neck to give warning to all men of their vile presence. In older days they were compelled to wear black garments and a wooden cross weighing five pounds suspended round their neck. They were moreover heavily taxed and branded.

Their social position is now much on a level with that of their neighbours in some respects better, as they are exempt from compulsory military service. It has been noted as a curious fact in superstitious times, though Copts, Jews, and Moslems continue to abhor one another's creeds, they continually call in the priests of divers faiths in times of sickness, as though their prayers had some magic power. The Moslems in Cairo will frequently call in Christian or Jewish priests, while they in their turn will summon some reverend Coptic or Arabian medan saint, or will even go to him for counsel at other

The Copts of the present day barely number one-fourteenth of the original Egyptians. Their churches have for the most part been destroyed and replaced by mosques, and their ruined convents are to be seen in every part of Egypt. Even their language is dead; for though their books are written in Coptic, Arabic is now the vulgar tongue, and even the illiterate priests, cannot understand the meaning of the words in the dead Coptic which they have learnt to gabble by rote, and many of them cannot read. As to the laity, they cannot be said to be wiser than their teachers, and few understand a word of the service, though they join in responses to them meaninglessly. Like a good many other things in Egypt, this modern remnant is but a poor degraded thing, well-nigh as lifeless as a mummy.

The Patriarch of Alexandria is the supreme head of the Coptic Church, and claims to be the lineal successor of St. Mark, who is held to be the founder of the Egyptian Church, and accordingly

observances. Such are the interminable fasts, Wednesdays and Fridays (when they may eat fish and get it), there are four long annual fasts: that of Lent, 40 days, during which every sort of animal food is prohibited, except eggs, milk, or cheese.

Some of their observances would seem to have come from their Moslem neighbours. Not content with children must also be circumcised. Moreover, curious sacrifices for the departed is offered: when a year the survivors repair to the tomb of their having spent the night in weeping, they kill a bullock in the morning, and give its flesh to the marriages are also arranged on purely Oriental principles: a husband is not allowed to set eyes on his child age varies from ten to thirteen; till after the wedding being chosen for him by a professional match-maker. Jews of old, both bride and bridegroom wear golden the marriage service. These, however, being church removed ere the young couple leave the church.

worship are generally similar to those of Rome. The seven sacraments, with this peculiarity, namely unction is administered not only to those at the point also to penitents after the commission of any great sin.

They baptise by immersion, and use a cross the Not that this seems invariable, as in the photographs of Primate (Coptic) his jewelled robes are embroidered crosses innumerable. (By the way, what a curious Abyssinian Christians are—with their priests, monks leather; and friars wearing yellow caps, and carrying a fan, like the Buddhist priests; kneeling at a Christ morning, then going home to enjoy the beef-steak which just cut from the quivering side of a living ox, placed wound with cowdung, and sewing up the skin, as if it

gon is portrayed in innumerable pictures, ancient and some of these are very quaint, more especially one the Day of Judgment.

There were two charming old priests, who showed us everything, unfortunately could not exchange a word.

They evidently enjoyed their ecclesiastical sight-seeing very much. They were a fine cheery-looking set, of all colours, from the blackest to the purest Negro. One of these fraternised with the wife of her home far away, and her own people. When her sisters were reverently kissing the veritable head of the saint she whispered to me with a quiet smile that it could not be his head, as no one knew where it was. Evidently she had a strong faith in the hydra-headed saints—luckless beings, whose heads, arms, legs, and minor relics are so freely multiplied and placed in every such widely diverse shrines.

Our guide into the Mosque of Omar, famous for its age, showed us a mosque so wretched and dilapidated that there was no temptation to enter. We drove on through ruinous suburbs, past the old Roman gardens overshadowed by fragrant acacias and tall date palms on and on through the sandiest of roads, till we could find no other.

We struggled on over mountains of rubbish and broken pottery, past the long line of busy windmills—hundreds of which were scattered on these artificial hills to catch each breeze that may follow from the west of old Nilus.

We sat for hours, making friends with picturesque Bedouins, and at last we last time watched the red sun go down in cloudless splendour behind the Pyramids, gleaming on the glittering waters, and casting a golden glow on the bronzed faces of a people who are used to the outgoing of the evening, to bow down and adore the Maker of the Sun.

C. F. GORDON CUMMING.

METASTASIO.

ROME has lately witnessed the centenary of the death of Pietro Metastasio. There was a time when Metastasio ranked with the greatest poets of the civilized world. Wherever men acknowledged the influence of the arts, there homage was offered to his genius and his fame. To-day, a man or woman might be very well educated and yet not know one single line of all the many thousand lines of verse which made Metastasio famous. But those, and there are many, who do read him, most notably the brilliant author of *the* *Præface* to call herself Vernon Lee, can bear witness that, if it was not all that his admirers thought him to be, he was something very like a great poet, the *Phœnix* of the *Stoics* and *lingers* in the speeches of his eighteenth-century *and* *Romans*, in the *Achilles* who snatches a court swain by the *locks* of *Ulysses*, and the *Regulus* who returns to Carthage with a *perfect* periwig. To the great men of the last century Metastasio seemed a great man. There are some lines in *the* *Journal* of the *New* *Héloïse* in which Metastasio is called "the only poet of the heart, the only genius who has found the form of poetic and musical harmony." Alas! the *flowers* of the *Épave* *Julie* and her faithful *Saint-Preux* are *more* *heeded*, than the stately dramas of Metastasio. Mr. Marley has wrangled his life of "The Apostrophe," the self-contradicting *Sophista*," by a most unworthy eulogy, the oddest eulogy of the eighteenth century, one of the *most* *ridiculous* of all time. It may be some comfort to the admirers of Metastasio to think that others share his fate; but Metastasio was praised for this, is underrated by his eloquent admirers, who ranked him with the Greek dramatists, is chiefly read for his *Præface* by fierce anti-clericals; that Schlegel who called Metastasio the *Racine* of Italy, has long since been shelved as a critic. But Metastasio's life was so strange that it would deserve re-telling were he as poor a playwright as the *el* *Credibilia*; that he was not unworthy of the praises of his age I believe to show by the way.

world owed the dramatist Metastasio to one of those curious accidents which are so often to be found in the lives of great men, and sometimes lead us to wonder whether, after all, there may not be possible great men to whom the chance never comes which leads them into Miltons and Hampdens. Metastasio's chance came in this wise. The Abate Gravina, the great Greek scholar of the time when scholarship meant only the chilliest appreciation of learning that was chilly and hard and motionless in Hellenic life, one day in the streets of Rome and heard a little boy singing to a crowd. Had Gravina turned down another street that day he stayed at home and studied his Homer; had he hurried on and boy without turning his thoughtful head towards the boy why then, in all probability, Mozart would never have put to the "Clemenza di Tito," and the poor beautiful Romanina would not have laid her love, her life, and her fortune at the feet of a little poet. But fortunately for art, Gravina was not too much occupied with thoughts of old Greece or modern Arcadia to stop for a moment. The beauty of the childish face, the sweetness of the boy's voice, stirred the heart of the stately scholar with an emotion unlike that aroused by the knottiest question of Roman law, the finest shade of classical disputation; in brief, he adopted as his pupil the eleven-year-old Pietro Bonaventura Trapassi, the son of a small druggist in a narrow Roman street. Gravina was a great man. He was professor of civil and canon law in the Roman University of Sapienza; he was the leader of the great revolution against the authority of Crescimbeni, in the once famous, now so forgotten, Arcadian Academy, which had stirred Roman literature to its depths, and inspired countless yards of comic verse. By his teaching and care the druggist's son got his Greekish Latin that told of his changed condition, and learned to become a student and a little courtier, writing dreary sham-classical dramas, reciting mechanically extemporised verses to smiling cardinals and princes. When Gravina did succeed in persuading

was very stately, and where poets and players ran gladly in of their prince-patrons, and bowed low enough as they got out of their great gilt carriages. But a little of this new life at the age of two-and-twenty in comparative poverty, and a disagreeable necessity of working for his living. Like many poet, he apprenticed himself to the law, under a famous lawyer in Naples; but his verse got mixed up too much with his legal business, and he could not keep his hand from plays. Chance again giving her Metastasio a good turn of her wheel, brought the man and his verses to the attention of the Neapolitan Vice-king, who promptly commissioned a play. Metastasio, eager for the work, and fearing for his position with his employer, obtained permission for his play brought out anonymously. When "The Garden of Hesperides" was played to the courtly folk of Naples they were delighted with its rococo classicism and its sham pastorality, and were eager to crown the author. Most eager of all was the king, who had played Venus in the *Orti Esperedi*. It would have been better for the beautiful Romanina if she had never felt any desire to know the author of the fantastic verse her beautiful husband uttered. But the beautiful Romanina found him out, and when she found him out, she fell in love with him. It was not difficult for the amorous actress to convince the gentle poet that love and the crown of laurel were better than the lawyer's desk; so Metastasio said good-bye to the law, and found shelter in the home of the beautiful Romanina and her husband, Dominico Bulgarelli.

Here for long enough the young poet lived very happily in a strange artistic society which thronged the Romanina's residence, and which did honour to the handsome brilliant poetic Abate. He wrote many operas which were successful, and comic interludes which were more successful still. Then Metastasio came to Rome, still in love with his Romanina, writing vigorously and successfully; the fame of which he had dreamed was no nearer. He had had some success and he was making some money, but he had not as much as he wanted of either; and then—and then—why, the Romanina was not always young or always beautiful. He had written "Dido Abandoned" for her; now he was preparing himself for the part of the "Faithless Æneas." He was in no sense a poet. He hated sonnets to begin with. They were a Procrustes bed to him, he said; and some of his which were written to the Romanina are sorry stuff. Nor was he ready with an unending Petrarchian fidelity. So he was not crushed with grief when his wife brought him the appointment of successor to the court poet.

Zeno of Vienna, and he went away with a light heart, leaving poor Romanina with a very heavy one indeed. He made a didactic speech to Charles VI. on his arrival: "I know not whether my satisfaction or confusion be greatest to find myself at the feet of your Cæsarean Majesty; it is an honour I have sighed for from my earliest days, and now I not only find myself before the best monarch upon earth, but I am here in the glorious character of one of his servants. I am not more conscious of the obligations I am under from such a flattering distinction than I am conscious of my own weakness; and if I could, with the loss of great part of my blood, become a Homer, I would not hesitate a moment to determine my choice. In the mean time, I will use my utmost endeavours to supply with unwearied diligence what may be wanting to my ability to serve your Imperial Majesty. I am truly sensible that however my incapacity may be, it will always experience the infinite clemency of your Majesty; and I hope that the character of Cæsarean will inspire me with what I despair of attaining by my own efforts." Fifty years he was to spend in the Cæsarean Court, contented enough indeed, but hardly to be considered a happy, a contented, or a very admirable mortal.

Lucky in his lot with women, he soon found another protectress, a fortune far more powerful than the actress of his youth—the Countess of Althann. Metastasio was the very poet to be as it were protected by women in this way; but while he took the change so modestly and composedly enough, the poor Romanina, far away in Rome, began to fret and exacting. After a time we hear of her setting out to join her faithless lover, and then of a sudden, somehow—no one quite knew whether she killed herself or died with grief, she was out of the way; and Metastasio was very sorry, and he gave gracefully up all the fortune which she had left him, and consoled himself with the Countess, whose lover, even whose husband, it is said he was.

But he was discontented for all his success. His life was staid and formal. The Austrian Court was hard and colourless to him, whose mind was steeped with memories of an Italian youth, and he grew old in vain discontent with himself and things about him—seeking for offices and not getting them—a rather melancholy poet. At last the Countess Althann died, but left him not quite alone. For the third time a woman's name is linked with that of Metastasio—this time said to be an adopted daughter, said even to be a very daughter; no one knows. With her and her relations he lived, and at last died, quietly enough, on April 14, 1782. The glitter, and vain desire, and strange success, and querulous disappointment, had come peacefully, if drearily, to an end.

The two plays of Metastasio which are most dear to me are his "Regulus" and his "Titus." Both these deal with the ancient Roman world. Both show us the old Roman spirit, not perhaps as it was, but, at least, as we are most pleased to fancy it. In both there is a stately dignity and grandeur which is worthy of the heroic themes chosen by the poet. In the "Regulus" we find Attilia, the daughter of the captive Regulus, waiting before the doors of the Consul Manlius to urge him to renewed efforts to save her father. Manlius appears and asks the reason of her presence. I quote from Hoole's translation, which, with all its faults, is a fine piece of work, and the only rendering of Metastasio in English.

Wherefore am I come ?

Ah ! say how long to every nation's wonder,
 To Rome's disgrace, has Regulus to languish
 In ignominious bonds ? swift pass the days,
 The years are heaped on years, and none remember
 He lives in servitude. What crime of his
 Has merited from Romans to incur
 Such base forgetfulness ? Perhaps the love
 With which he prized his country's good before
 His children and himself ? His great, his just,
 His uncorrupted heart ? Perhaps his rank
 Of high estate, his noble poverty ?
 And is there one who breathes this common air
 Can Regulus forget ? What part of Rome
 Speaks not of him ? The public ways ? Through these
 He passed in triumph once. The forum ? There
 He gave us wholesome laws. The walls where now
 The senate meet ? His counsels there full oft
 Have planned the public safety. Enter now
 The temples, Manlius ; mount the capitol ;
 And say who decked them with such foreign trophies,
 Sicilian, Punic, Tarentinian spoils ;
 These very Lictors that precede thee now,
 That Consul's purple robe ; these, these, were once
 Beheld with Regulus—and now he's left
 To die in bonds, and nothing more remains
 To speak his virtues but Attilia's tears
 Here shed and shed in vain !—Alas ! my father !
 Ungrateful citizens ! ungrateful Rome !

Manlius, uncertain whether it consorts with the dignity of Rome to make any effort to exchange or ransom Regulus, leaves Attilia in despair, from which she is suddenly roused by Barce, a captive Carthaginian lady, who informs her that an ambassador has arrived from Carthage bringing with him Regulus himself. But the joy which *Attilia and her brother Publius* feel in returning to their father is

suddenly shattered when Regulus, in full presence of the Conscript Fathers, advises them to reject the Carthaginian terms, and to send him back to certain death. Manlius argues against this counsel, urges how ungrateful it would appear in Rome to suffer so good a citizen to die in such a way. Regulus replies :

Would Rome be grateful to me, Regulus
Shall point the way to show her gratitude.
These rude barbarians, fathers, dar'd to think
My soul so base that abject fear of death
Might send me here with purpose to betray you.
This thought alone exceeds the sharpest pangs
That tyrants can inflict—revenge me, fathers—
I was a Roman once—arm, arm, with speed,
And from their temples snatch the imprisoned eagles,
Nor sheathe your weapons till this rival power
Be crushed for ever! Let me when returned
Even in the face of my tormentors read
The dread of your resentment ; gladly then
I perish ; in my latest hour to see
How Afric trembles at the Roman name.

In vain does Manlius argue with the high-spirited Roman ; in vain do his children, Attilia and Publius, urge him with all the arguments that filial love can inspire ; in vain does Licinius, Tribune of the people and lover of Attilia, employ all his eloquence ; in vain does Amilcar himself, the Carthaginian envoy, advise him to remain. To each and all Regulus makes the same stately reply, dwelling on the duties of a Roman citizen and the glory of the Roman name :

Our country is a whole
Of which we form the part, 'Tis criminal
In one that bears the name of citizen
To weigh his private weal distinct from hers,
By him is nothing to be wished or shunned
But what may harm or benefit that country
To which he owes his all. Whene'er he toils
Or sheds his blood to serve her, from himself
He nothing gives, but only renders back
What he from her received. She gave him life
And nourishment ; she reared his infant years
To ripened manhood ; with her laws protects
From home-bred spoilers ; with her arms defends
From foreign insults ; she on him bestows
Name, rank, and honours ; she rewards his merits
And vindicates his wrongs ; a tender mother,
She labours to procure him all the happiness
Which earth can yield. But blessings such as these

'Tis true must have their claims, and who rejects them
 Must give up every title to the advantage
 Of law and social compact ; let him seek
 The inhospitable woods, there feed contented
 On scanty acorns in some sordid sty,
 And at his will enjoy a life of freedom.

The very people rise in the streets to prevent Regulus returning to the Carthaginian ships, but the unbending Roman refuses to accept his freedom, compels them to allow him to accompany Amilcar. His farewell speech to the Romans is one of the finest in the play :

Romans, farewell ! And let our parting now
 Be worthy of us. Thanks to heaven ! I leave you,
 And leave you Romans. Ah ! Preserve unsullied
 That mighty name, and be the arbiters
 Of human kind till all the world become
 By your example Romans. Guardian gods
 That watch this happy land ; protecting powers
 Of great Æneas' offspring ! I entrust
 To you this race of heroes. Still defend
 This soil, these dwellings, these paternal walls ;
 O ! grant that glory, valour, constancy,
 Justice, and truth, may ever here reside ;
 And should some evil star with adverse beams
 E'er threat the capitol, see, mighty gods,
 See Regulus—let Regulus alone
 Be made your victim, and the wrath of heaven
 Be all consumed on my devoted head ;
 Let Rome unhurt—But why those tears—
 ——Farewell !

The play of "Titus" is scarcely less impressive. The whole purpose of the play is to exhibit the nobility of the nature of Titus Vespasian as it is described by one of the characters :

Take from ourselves a friend from Rome, a father !
 Look through the records of antiquity,
 You seek in vain his equal ; can your mind
 Paint one more generous or merciful ?
 Speak to him of rewards, his treasures seem
 Too poor to answer merit ; speak of punishment,
 His goodness finds excuse for every crime ;
 He these forgives for inexperienced youth,
 And those for hoary age ; in some he spares
 The unsullied fame of an illustrious house ;
 And pities others for their abject state.
 He measures not his life by length of years
 But acts of goodness done ; and thinks the day
 Is lost that has not made some subject happy.

This is the key-note of the play, as unbending Roman virtue was the key-note of "Regulus." To love, to danger, the Titus of Metastasio shows the same calm immobility, the same unyielding determination to do what is right regardless of himself, which might well be the philosopher's ideal, and which certainly history cannot claim for the true Titus. His speeches all breathe the most exalted sentiments :

Oh, if Justice should exert
Her utmost rigour, soon the earth would prove
A lonely waste.—Where shall we find the man
Within whose breast no guilt, no little frailty,
Has ever lurk'd? Let us but view ourselves.
Believe me, seldom has a judge been known
Free from that crime for which he dooms the offender.

At a time when a terrible plot against his life has been discovered, his impulse is turned, not to revenge but to regret the ingratitude of Rome :

Who more could sacrifice to others' good
Than I have done? Yet all suffices not
To gain the public love; there are who hate me,
Who seek to pluck the laurel from my brow,
The laurel dearly earned with toil and danger,
And these can find associates even in Rome;
By Rome is Titus hated; Mighty gods!
Who have laboured all my days for her;
Have for her greatness shed my dearest blood;
Have borne in distant climes the parching heat
Of burning Nile, or Ister's freezing cold;
I, who ne'er harboured in my mind a thought
But for her glory; midst my own repose
Still watched her good; who cruel to myself,
To please her rooted up my first affection
And stifled in my breast the only flame
My heart could ever cherish!—O my country!
Forgetful subjects! O ungrateful Rome!

When friend after friend seems to be faithless and treacherous, he muses upon the misfortunes of the great :

How wretched is the lot of him who reigns!
We're still denied the benefits of life
The meanest men enjoy. Amidst the woods
See the poor cottager whose rustic limbs
Are clad in rude attire, whose straw-built hut
But ill resists the inclemencies of heaven,
Sleeps undisturbed the livelong night and leads
His days in quiet; little are his wants;
He knows who love or hate him; to the forest

Or distant hills alone accompanied
 Fearless he goes and sees each honest heart
 In every face he meets—but we midst all
 Our envied pomp must ever live in doubt ;
 While hope and fear before our presence still
 Dress up the features foreign to the heart.
 O could I once have thought to feel this stroke
 From faithless friendship !

The unvarying goodness of Titus may, perhaps, sometimes seem a little aggravating, and the unalterable and inflexible heroism of Regulus at times wears an air of pomposity. But there is something so noble about the two plays that we can well forgive any slight over-accentuation of the characteristics of the principal figures. As we read, we are in the old Roman world again, that old Roman world as seen by an Eighteenth-century poet, no doubt, but still with no little of that antique grandeur and simplicity which we have been led to associate with the Roman name. Metastasio's Rome is certainly not the old Rome of Pietro Cossa. There is little or no attempt on the dramatist's part to recreate history. The figures of his plays are types of particular virtues rather than studies of varied human character. The Adrian of his "Adrian in Syria" is little more than an amorous Titus. In "Aetius" the character of the Roman Emperor Valentinian is scarcely more varied. The same monotony of treatment runs through all these Roman plays, which invariably present groups of persons engaged in complicated love affairs, and revolving round some central figure of supreme nobility. The heroes bear Roman names, and fine speeches about Rome flow readily from their lips, but the dramatist is at no pains to attempt anything like historical treatment. In the plays of Pietro Cossa the Roman emperors stand out vivid and terrible as if they had stepped from a page of Tacitus or Suetonius. In the plays of Metastasio they are courtly gentlemen possessed of the virtues which are invariably attributed to princes, and always ready to act in the noblest manner. But if his Romans are not very Roman, how yet more unGrecian are his Greeks ! The Jason of his "Hypsipyle" is much more unlike the Grecian leader of the Argonauts than is Mr. William Morris's "Jason." The Dido is essentially a fine lady of the last century, and his Themistocles is only one degree more Greek than the courtly periwigged heroes of Racine.

In the "Achilles in Scyros," however, we have a Grecian scene that is not all uninformed by a Grecian spirit. The eighteenth-century dramatist has introduced the fair Deidamia to hold Achilles at Scyros *in the chains of love* ; for this there are Hellenists enough ready to

blame him, as Mr. Symonds has blamed Alfieri for introducing the modern passion into the relations between Antigone and Haemon. To my mind, this very act shows Alfieri and Metastasio to be poets and not pedants. They were writing in Italian for an Italian audience of the eighteenth century ; they were not preparing trilogies to delight Periclean Athens. Metastasio's Deidamia once accepted as unHellenic in the sense that Cressida is unHellenic, Achilles is a gallant Greek enough, and the wise Odysseus would not be ashamed to recognise himself in the Ulysses whose eloquence stirs the disguised son of Peleus to martial ardour. The scene where Ulysses dilates to Arcas upon the statues of heroes in the hearing of the disguised Achilles is one of the finest scenes in all eighteenth-century drama. Metastasio was not a great dramatic poet in the sense that our chief Elizabethans were great dramatic poets, in the sense that Goethe and Schiller are great dramatic poets, but he had great ideas and noble thoughts. His faults are the faults of his age, his merits the merits of great poets of all times.

JUSTIN H. M^cCARTHY.

THE BIRDS OF POETRY.

IT is a sufficiently grave charge against our British poets that they have completely neglected to utilise all the splendid wealth of material which "foreign" ornithology places at their disposal; and, in considering the question why the poet's range is so unnecessarily and injudiciously limited in this respect, we must either accuse them of some worse alternative, or else put it down to mere ignorance. But in the case of many of them this ignorance was their misfortune, not their fault, for in their day the door to the natural world was only put ajar. But, though we can hardly quarrel with a poet for not writing about birds he did not know of, we *can* quarrel with him for not knowing about birds which he did write of. And so, putting out of court the inadequate recognition in the British bards of certain large groups of indigenous birds (notably the sea-fowl and birds of prey), as well as their absolute neglect of the ornithology (with a few immaterial exceptions) of all Asia, Africa, and America; and dismissing for the present their apparent want of sympathy with certain individual species, such as the crow, owl, goose, and raven (being both domestic and foreign), which are the most "unpopular" birds in the poets' repertory, I am left with some fifty kinds,¹ which together comprise the professedly "popular" Birds of Poetry.

For the larger half of these, which live in verse only by a single epithet or solitary phrase, a very few lines will suffice to pass them in review. Thus "the mellow bullfinch," that "whistles soft a flute-like note"; "the prudent crane," that "steers an embody'd flight"; the "clamouring" crake, "among the clover hay"; "the sooty" coot, "that dives merry in the lake"; the "screaming" curlew; the "timorous" field-fare (supposed by Scott to nest in Scotland); the goldfinch, "music's gayest child," and reproved by the poets for its pride in its "gaudy" feathers; the greenfinch, "in its green

¹ Viz., bullfinch, crane, corncrake, coot, curlew, fieldfare, goldfinch, greenfinch, martin, ousel, rook, stork, swift, wren, blackbird and thrush, cuckoo, doves, eagles, heron, kingfisher, larks, linnets, nightingale, robin, swan, swallow, sparrow, woodpecker, game-birds,

array"; the "dingy" martin, "by children, till of late, held sacred"; the ousel, "peering through a wave," and singing a "sad" ditty; the stork, "in serious assembly," "consulting deep and various"; the "amusive" swift, in "giddy, rapid flight"; and "the soft wren," "light rustling among sere leaves and twigs." But among the remainder are some important fowls—important both from their overwhelming frequency in the poets' pages and from their pertinence to my present purpose.

All the British poets then (down to Tennyson and Morris, who are always tender and therefore true to Nature and "the speechless world") have, I venture to complain, neglected Nature as represented in the bird-world, and have confined themselves within an ornithological range much too limited; and, with these same two conspicuous modern, and one or two earlier, exceptions, the whole range of British poetry seems to me to betray a systematised lack of sympathy with the natural world which is expressed in formulated principles. Whereas American poetry is always tender to things in fur and feathers; and this, too, with such an engaging pitifulness, that I hope to devote a special paper to the illustration of this Buddhistic kindness and its probable explanation.

In the mean time, I have the British poets and their treatment of their favourite birds before me. These are (excluding those already reviewed above) the blackbird and thrush, farmyard poultry, game-birds, doves and eagles, nightingale, cuckoo, larks and linnets, robin, swan and swallow; so that this short list includes no fewer than six out of the eight¹ species that we may call the poets' "stock-in-trade birds," and the greater proportion, therefore, of their everyday working ornithology.

Whenever a dash of the country has to be added to a poem, one or other of these six is sure to be called upon, and every poet therefore keeps on hand a white-necked swan to sing before it dies, and a proud, fierce eagle to stare at the sun and grasp thunder, a melancholy dove (by preference a "turtle") to bemoan its widowhood, a blithe lark to "upspring," and a lorn nightingale to tell her sorrows to the moon, and a linnet—to make itself generally useful, whenever there are bushes about.

But though the poets avail themselves thus liberally of these birds, they do not deal liberally by them. For not only do they offend them by depreciatory errors of fact—which in no way benefit their verse; but they are often singularly inadequate in their general

¹ Dove, lark, linnet, nightingale, eagle, swan—and the owl and raven, which are "unpopular" birds and only used designedly to illustrate the darker sides of life.

treatment of them—which undeniably injures it. Shelley, by himself, has exhausted the skylark, and the poets, between them, have super-added a beauty to the nightingale and a dignity to the eagle. But with these exceptions, every one of the popular birds has, it seems to me, some ground of complaint.

To notice first those who suffer most from neglect—are there no lessons to be taught by the bustard, or the heron, or the osprey, or the stormy petrel? or is there no “soul of beauty” in the kingfisher, and the curlew, and the woodpecker, that the poets should avoid them? Surely the heron, as being solitary, would sometimes give more to a line than “stock-dove,” and the curlew, as sadly lamenting, more than “the turtle.” Scott had heard the curlews scream, and Burns too, but (except Gilbert White) I would not be certain that any other poet beautifies a line with this bird’s picturesque and suggestive name. Or, for wild proud freedom, what feathered thing have the British Isles ever had to compare with the bustard? Yet, except as a course in Prior’s dinner, I have not met with it among the bards. The coot, an ugly name, perhaps, is significant of sequestered water-ways and all the stillness of undisturbed pools—artists delight in it—but, except Scott and Burns, no poets use it. Or, as expressing all the spirit of the warm stillness of the summer evening, what is so vivid as the corncrake’s name? Yet how often shall we find it outside of Scotch clover in the poems of Burns and Grahame? Or, as expressing the quiet gloom of the woodland in the moth-time, what more striking than the word “night-jar”? Yet only once (in Gilbert White, a naturalist) do we find it, finely supplementing the worn-out old owl. Fortunately for the kingfisher, it is also “the halcyon,” or it would have been as nameless as that fantastic dryad, the woodpecker, one of the most poetical of English birds. We have volumes about the obtrusive (and delightful) skylark, but barely a page about its peerless kinsman, the modest and exquisite wood-lark. It is the most beautiful songster that we can call English, and the one and only bird to whom the nightingale himself cannot give a note or presume to suggest a beauty. In short, without going further into the inquiry, I confess it very difficult to admit that “sensibility to natural beauty” is an essential for the production of poetry; and, while allowing that the possession of imagination may supersede in great part the necessity for observation; that it emancipates the poet from many trammels; that it often transfigures and beautifies the prosaic; that it does all this, and very much more,—I am reluctant to concede to the poets the prerogative of ignoring, or the privilege

of misinterpreting, the suggestions of Nature. She sings too plainly and too truly to be misunderstood or improved upon.

Everybody in the British Isles knows "the lyric blackbird," and has at one time or another admired its "carol" as being "blithe," and heard it "warble clear and strong." But the poets, with that exceptional sympathy with Nature which they claim, might almost have been expected to express in their verse some larger measure of admiration than the vulgar thus easily attain to. They know it as a "summer bird," and have observed it in the "thorny brake," "the woodland," and "the vale." But is it not a spring and an autumn, and, above all, a winter bird too—thereby setting the vagrant nightingale an example? And does it not beautify with its winning ways and rich song the orchard, and shrubbery, and lawn, as well as those wild places which the nightingale and other songsters haunt? Surely, from these divine resources the poets might have had a better word to say for this lovely bird, which flutes as exquisitely to the brick-and-mortar heart of London as to its own fragrant thicket; this pet of the poor, that may be heard shaking out its voice from the garret-window of a slum, like some evangelist from a happier life, until the impure air seems to lift from about its cage and the full-throated captive makes a clear blue sky above itself and calls up all the gracious pomp of the woodland round it. The blackbird is the very model of what a poet himself should be. Yet the poets, though consistent and kindly towards this bird, are commonplace and inadequate. Its name, "the merle," is itself a sweet symphony, and often helps the bards to a grace; while every line borrows an echo of melody from the mere reference to its song.

With the thrush, also, most British poets are on intimate terms. This beautiful bird, however, seems to be too often only the other half of the blackbird, as it were—its counterfoil and complement. The blackbird throws a thrush shadow, and the mavis' song is chiefly admired as in antiphony to the merle's. But I am not at all sure that this relative subordination is fair to either individual. In nature, it is true, "blackbirds and thrushes" are very constantly together, and so far the poets are justified, but lovers of nature will as soon acquiesce in the immersion of the thrush in the blackbird, or *vice versa*, as in the consumption of either as food. Was ever the sweet nightingale so wickedly abused as in Sardinia, where they use it as a pickle for thrushes!

Chanticleer! How the bards delight in "the princely bird," "noblest of the feathered kind," who, "single in his domain," "lifts shrill his lofty clarion" "to proclaim the crimson dawn"; who

"amidst his harem sleeps in unsuspecting pomp," or, "wakeful," "counts the night-watches to his feathery dames," and as "the shepherd's clock" "his matin rings," "with startling summons," "at peep of day"—"a cottage-rousing crow," that "with lively din scatters the rear of darkness thin," and then, "fearless," "to the stack or the barn door stoutly struts his dames before," "flirting empty chaff about." Indeed, it is not only pleasing but even a little pathetic to remark the gratitude of the poets to "the various poultry," "of mixed domestic kind," for their general and very varied utility in verse—"The tame villatic fowl" thus become a very widow's-cruse of comfort to the unprovided bard, for they are inexhaustible in similes and illustrations, conceits and texts. Besides, there is so much in the manners and customs and demeanour of "the feathered tribe domestic," that prompts to cheeriness in style, a hearty homely vigour of language—quaint and sudden turns of thought, lively sallies of humour, bright alternations from grave to gay and from gay to grave again, unexpected flights of imagination—that the poet, whether courtier, philosopher, or satirist, may find an infinity of material "within the palings, where the household fowls convene." What a diversity of romance gathers round these birds in the fables of the poets, and what monstrous fun Chaucer, Dryden, Fenton, and others extract from Chanticleer and Partlet! There are those, of course, who decry the bird of Æsculapius, of Minerva, and of Mars, but the majority in its favour is overwhelming. What an engaging robustness does it attain in Milton and in Shakespeare!

The cock that is the trumpet to the Morn,
And doth with lofty and shrill-sounding throat
Awake the God of Day,

arrives at considerable dignity; while in Cowper he reaches the highest rung—

the noblest of the feathered kind.

Now, as curious in itself and certainly not without a significance that "elegantly advantages my text," it is worth noting that, while compliments are thus heaped upon the cock, there is nothing apparently worth saying to the credit of the hen or her chickens. She is a "careful" but a "cackling" personage, and, with her offspring, is always in ridiculous bewilderment or in difficulties. The fact is, the poets find themselves on sure ground when speaking of barn-door fowls, and do not disdain, therefore, to draw nice and accurate distinctions of character. No liberties are taken with *Nature*—there is no "poetical license"—as when they hazard their

errors about pelicans and cormorants, vultures and birds of Paradise ; and it might almost be inferred, therefore, that if they had known more about these exotic birds they would have sung more sympathetically about them, have left the pelican its life's blood, and the-bird-of-Paradise its legs.

To point this inference I may note the significant fact that every one of the British game-birds—nine in number—finds honourable mention, even though the multitude of sea-fowl are dismissed with seven species. Scott delights in the black-cock with its "sable plume," its "wing of jet," and its "jetty wing" ; and, whether as gor-cock, heath-cock, or "moor-cock," may be depended upon both in Scott and Burns as a detail of early morning, and this, too, with an accuracy that does not detract from its picturesqueness. With the "birring" partridge it is the same, for a score of poets make frequent mention of it (as a rule, in connection with the early shooting days of September) : grouse, of course, comes in for its share of notice, and the pheasant too—Somerville apparently having been often out on the 12th himself. Ptarmigan finds its immortality in "Marmion" and elsewhere ; the quail in White's "Evening Walk," in Keats and Parnell, and others ; the woodcock in a score of poets—Gay, Butler, Garth, Philipps, Greene, Pope, Shenstone, Prior, Drayton, Burns, Byron, Shelley, and Wordsworth among them—as an article of food and an object of sport ; the snipe in many besides Wordsworth (who had evidently often flushed it in his walks) ; the wild duck "on Avon's tide," where Shenstone made a note of it, Gay set his hawk at it, and Somerville shot it.

All the game-birds, then, are on the poets' list. Yet take them together and can it be said that they offer the poet the same *surface* of poetry or the same variety of beauty as any other nine which, comparatively speaking, they ignore—for instance, the heron, curlew, woodpecker, kingfisher, bustard, kestrel, merlin, nightjar, and corncrake ? Moreover, the accuracy to nature with which the poets touch off the game birds is quite "unpoetical." Their pelicans may tear their breasts open to feed their young and their vultures chase woodpigeons, their eagles feed on fruit and their nightingales soar to sing ; but there is no mistake about their woodcocks, whether in the cover or the larder, or about their snipe, whether on the wing or on toast.

No bird or family of birds has given more beautiful lines, similes, illustrations, metaphors, and ideas than the Pleiad of "the doves" ;¹ yet the poets know absolutely nothing about them. As

¹ Ring-dove, wood-dove, wood-pigeon, stock-dove, cushat, turtle-dove, pigeon.
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domestic poultry—"pigeons"—they saw they were greedy, quarrelsome, and wanton; but the wild bird was a complete secret to them. They speak of it as a solitary fowl, generally a widow, of most melancholy disposition, that lives under a sense of grievous injuries received, and goes in fear of her life, being perpetually "pounced"¹ by something or other. When mated, she is an exemplar to the woods of chastity; when widowed, a model to the whole world of constancy and fidelity to the memory of the deceased. She is usually "silver"; but her neck frequently glows with iridescent tints, perpetually changing, and she is otherwise distinguished by a "homely song." The chief characteristic is her solitariness; and "forlorn," "widowed," "melancholy," "pensive," "moaning," "dolorous," "plaining," "wailful," "miserable," "wretched," "sobbing," and "mournfully hoarse" are sufficient to illustrate this. Next comes the idea of her constancy in affection—it is needless to accumulate epithets—and, indeed, it is distinctly stated again and again that this constancy is *only* to be found in doves—especially "turtles."

What a "turtle" is, the poets cannot agree. Some make it the male of "the dove," others the female of the "stock-dove," and others again the male or female of the ring-dove; while the stock-dove and ring-dove are similarly mis-mated in bewildering combinations, the general result being as delightful a confusion of three wholly distinct species of birds as even poets could wish for.

Of the rest of the poets' dove fictions—how they had no galls, and were thus "serenely mild"; how they built nests of exceptional cosiness; how "clowns" cruelly carry away these nests in their hands (the delicious idea of it!); how vultures chase them, and so forth—I have not space to speak. But, after all, does not "dove," the Christabel of the birds, rhyme delightfully with "love,"—and where, after all, are we to expect to find pretty errors perpetuated if not in the unnatural history of the poets? But it is a pity the poets did not know that a dove's "nest" was about as cosy as a box of matches spilt on a mantelpiece.

Next on my present list comes the eagle; but if I begin, where shall I end? The poetical literature of "Columbia's bird" will fill a solid volume. Indeed, the very word in itself is so beautiful, that I can easily understand the poets delighting in its use. And what a splendid thing it grows, this eagle, under their inspired pens! So splendid, indeed, that nature borrows the supreme epithet of its

¹ *The Pleiades*, "pounced" by Orion, were changed into doves and sent up out of harm's way among the stars.

name—"eagle skies," "eagle-baffling mountains," "eagle tempests"—the cloud borrows its wings, the sun its eyes. It towers overhead "the feathered king" and "bird of Jove," "royal," "wide-ruling," "imperial," "thunder-grasping," "Olympian," "Lord of land and sea." It is the captain of nations, and has Victory for a slave. It lends its dignifying name to majesty and to science, to religion, philosophy, history, and song. It symbolises triumph and dominion, and is the emblem of pride and of noble ambition, of chivalry, of fame, and of freedom! Its flight is the supreme comparison for strength and speed, for distance and for height. Discord in nature reaches its climax when the slumber of the eagle is disturbed. Under the shadow of its pinions is an universal silence, a deferential peace.

Yet even here, if I may do so without seeming to be profane, I would lodge a protest against the poets who make the eagle—

Whom Madhava bestrides
When high on eagle's plumes he rides—

eat human corpses. That it eats carrion is well known—the gods themselves were sordid when they stooped to earth—but once make the eagle the boon-companion of the vulture, the hyena, and the jackal, and all sympathy with the great bird is choked. I would also venture to remonstrate with Shelley, the poet of Freedom and the Eagle, for speaking of it as feeding on flower seeds. The poet wished to account for the growth of some vegetable stuff on the pinnacle of a crag of prodigious height. He would not admit that any other bird than the eagle could have flown to such a height, and therefore (knowing that birds are one of the recognised agencies in nature for the diffusion of seeds) he says that the day was

So calm
That scarce the feathery weed
Sown by some eagle on the topmost stone
Swayed in the air.

Nor should the eagle be called "lily white." At *worst* it is golden.

The nightingale, in itself a poem, has hatched hundreds—so many, indeed, that the subject overwhelms me. Some of these are notoriously of exquisite beauty, and yet there has been enough fustian written about the bird to make Keats' "eyes dissolve in woe" and Milton "roar." Do poets ever read each other? From the monotony of their repetitions about nightingales alone, I should be inclined to think they never did—unless, of course, the same phenomenon of *plagiarism* be accepted as proof that they do. But apart

from mere dull, harmless fustian, made all the duller by the "damnable iteration" of their echoes, their verses are as "shagged" with silly errors of fact as Thomson's wintry plains are with silly errors of fancy. Take, for instance, the poets' persistence in making the *female* nightingale sing—the *hen bird*, that cannot, as Chaucer would say, "sing me worthe a boterflie"! Milton, Gilbert White, and Montgomery knew better; but the rest, thinking to create a thing of greater beauty than Nature contained, present us with a she-nightingale—a preposterous fowl, as wicked as the poet's ostrich, that is

formed of God without a parent's mind,

that wastes all her night in telling her "melodious sorrows" to a world in bed, and flying about the woods, instead of sitting on her eggs and keeping the night-chill off them; the absurdity reaching its climax in Mallet, who, conscious of error, yet loath to abandon the legend, makes "Philomela" *male*! It is not easy to recognise the benefit that poetry derives from such eccentricities, for nothing ever yet written in verse surpasses the wonderful poetry of the real nightingale's life. It comes to England every year from Asia Minor, to build its nest in English hollies and sing its song. It nestles in the "leafy quiet" of "shadiest covert hid"—

What more secret than a nest of nightingales?—

and there, sitting close by his brooding mate, the male bird sings day and night. It has drawn for itself what naturalists call "the nightingale line" across the English shires, and all the loving artifices of man cannot get it east, west, or north of its own chosen limits; and I cannot recall any other fact in ornithology so curiously picturesque as this.

That Waller knew the nightingale left England as soon as summer was gone is evident in the following (from his "Address to Sir W. Davenant")—

Thus the wise nightingale that leaves her home,
Her native woods where storms and winter come,
Pursuing constantly the cheerful spring,
To foreign groves doth her old music bring;

and that Cunningham—a poet who is often conspicuously correct in his references to nature—was aware of the same fact of Philomel's migration, is suggested by his saying, in "The Contemplatist"—

The nightingale, a welcome guest,
Renews her gentle strains.

Mrs. Hemans also had a suspicion of it ; and of Carew I am doubtful. But I have not been able to find any other direct acknowledgments of the bird's precipitate desertion of the country that gives it a home when it needs one most. Indeed, it is only in Longfellow that I can find expression given to the well-founded grudge. It is borrowed from the German—

Oh, maiden fair, oh, maiden fair ! how faithless is thy bosom.

The nightingale, the nightingale, thou tak'st for thine example.

So long as summer laughs she sings,

But in the autumn spreads her wings.

The nightingale, the nightingale, thou tak'st for thine example.

That many British poets knew the nightingale did not sing after June is beyond doubt, but they attribute the cessation of "her" song either to Philomela's own private woes (the treason of such a suspicion !)—

mute, for her false mate
Has fled and left her desolate ;

or else to her being overwhelmed by the contemplation of the dead spring ; or else, as Shakespeare does, to a pretty and even high-spirited vanity—

As Philomel in summer's forest doth sing,
And stops her pipe in growth of riper days ;
Not that the summer is less pleasant now
Than when her mournful hymns did hush the night,
*But that wild music burthens every bough,
And sweets, grown common, lose their dear delight.*

Other prominent errors of fact are denying that it sings by day—calling it the *only* songster of the night—describing it as singing on the wing—making it "high-perched." And, unfortunately, each of these detracts from the undeniable poetry of the real bird of Nature, in comparison with whom the poets are but mere apprentices.

Oh ! cuckoo, shall I call thee bird,
Or but a wandering voice ?
 . . . darling of the spring,
No bird ; but an invisible thing,
A voice, a mystery.

This sums up fairly enough the verdict of the poets on this bird. It was undoubtedly a favourite with those who knew Nature best, and for all the the rest it afforded "a cuckoo cry." It was not easy to go wrong about the cuckoo, for the chief facts of its natural history

were so popularly familiar as to have passed into proverbs—and for the rest, it was “an invisible thing, a voice, a mystery.” Wordsworth’s ode to it is a delightful welcome to the “blithe newcomer,” that with its “sovereign cry fills all the hollows of the sky,” and “straggling up to the hill-tops, shouteth faint tidings of some gladder place;” and as “the rustic herald of the spring”¹ the cuckoo has received from many another poet a pretty compliment and graceful word. Yet there are those who have called it “dull” (*Phillips*), “shallow” (*Milton*), “hollow” (*Thomson*), “foolish” (*Dryden*), “hateful” (*Shakespeare*), and others who lay stress only on the “monotony” of its notes,

The cuckoo away in the thicket
Is giving his two old notes,

or their purport, as “unpleasing to the married ear.” Yet folklore abounds with the kindest nonsense about the cuckoo, for it is a favourite in every country and revered in most. English country folk, for instance, believe it to be a bird from spirit-land and the bearer of good omens. They say, too, that it turns into a merlin in the autumn, and that little birds love it. But somehow, so it seems to me, neither the picturesque nor the poetical in the bird-world of Nature commends itself to poets, and so, as they persist in preferring the ideal, the artificially pleasing, and the supernatural cuckoo, the beautiful parable of this bird finds no place in verse.

One poet has consecrated the skylark, and the others have made use of it liberally; and if it is not found “up-springing” on one page,

¹ O youths and maidens rise and sing,
The koel is come who leads the spring,
The buds that were sleeping his voice have heard,
And the tale is borne by each nesting bird.

The trees of the forest have all been told,
They have donned their mantles of scarlet and gold,
To welcome him back they are bravely dress'd,
But he loves the blossoming mango best.

The koel is come, glad news he brings!
On the blossoming mango he rests his wings,
Though its hues may be dull, it is sweet, oh sweet,
And its shade and its fruit the wanderer greet.

The koel is come, and the forests ring,
He has called aloud to awake the spring—
Spring, the balmy, the friend of love,
The bodiless God who reigns above.

—Waterfield's Indian Ballads.

it may be depended upon to be "mounting" a little later on.¹ It is popular, and deservedly so, for it abounds in the moralities. Is it not "low-roosted," and yet "sky-searching," and does not this alone open the way to a very Sahara of virtuous teaching? With one eye on heaven and the other on the ground, is it not at once the emblem of aspiring hope and of earth-seeking pleasure? Moreover, it salutes the morn, a pattern of daily rising; cheers up the field-labourer; dries its wings at the sun; and does many other things which suggest to the poets a wonderful variety of lines of great beauty.

It is "the morning lark" that "warbling springs frae the dews of the lawn,"

And climbs the early sky,
Winnowing blyth her dewy wings
In morning's rosy eye;²

"bidding the villagers rise," and calling up "the tuneful nations."
It is "the bird of the opening year"

that upstarts his flight
From his nest in the green April corn,
to salute,
sweet warbling on the wing,
The gay return of spring.

It is "the somer's lark" that
doth gild
With merry song the summer hours.

It is "the merry lark," "joyous as morning," that
invisible in flecked sky
Sends down her revelry.

It is "the soaring lark" that
lessening from the dazzled sight
Melts into the liquid light.

Moreover, some of the poets, honouring their "muse" with the epithet "lark," appear to think that because "they leave the lowest nest," they therefore "soar highest from the earth." Recognising a similarity of humble beginnings, they make the mistake of continuing the parallel, and because they "from a thatched pallet rouse," would infer that their melody takes heaven's gates by storm. This

¹ The lark shall soar in every ode. — *Cowper*.

² Compare with this Wordsworth's—

The lark
That dries his feathers saturate with dew
Beneath the rosy cloud.

is of course an error, for the flight of poets is principally horizontal. Only a very few indeed, "like the skylarks, pour their songs into the sun."

This does not, however, prevent Wordsworth apostrophising it as "Drunken¹ Lark," nor Gay making it a wood-bird, nor Spenser, Scott,² Young, Thomson, Burns, and others calling it "shrill," nor many of them describing its flight as being in circles (which it is not), and exaggerating its really very moderate altitude into eagle distances, nor speaking of it as a favourite with the farmer. But on the whole the lark stands out conspicuous in the ornithology of the poets as a bird to which full justice has been done.

Very frequently associated with the lark is the linnet. It is evidently looked upon as a common little brown sort of bird, and familiar but kindly liberties are taken with it. But the linnet has nothing to complain of. For one thing, it is not a bird of much character, while its song, though of extraordinary compass, delights from the very absence of character. Keats, who had evidently watched linnets, calls it "chuckling;" Shenstone, "artless"; and Beattie, "careless"; while Cunningham speaks of its "unnumbered notes," and Akenside of its "random strain." These are admirable touches. All the poets alike are gentle to it (except pelican Montgomery), and use it only as a harmless and pretty adjunct to a country place—"starting all about the bushes." It is one of their stock-in-trade birds, and stuck on like the Oriental "knop and flower pattern," whenever there is room for a little bit of innocent ornament. Its association with the lark deserves perhaps a passing word. Thus, Lyttleton makes the linnet and the lark chant their matins together, and Watts says they sing their vespers together, while between whiles they are to be found in company at all hours, either in one poet or the other. Moreover, too,

with rival notes
They strain their throats
To welcome in the spring,

and side by side,

sing of love
While the summer remains.

But this is only in the poets. In nature these two pretty minne-

¹ Longfellow likens the mocking-bird's melody to the revels of frenzied Bacchantes.

² Scott's use of the epithet is most indiscriminate. He applies it to birds so widely different as the eagle and the robin, the grouse and the seagull, the skylark and the plover. It may, of course, mean something in Scotch: in Scott's English it means nothing.

singers are not comrades, for the lark is a bird of the meadows, linnet of the hedgerows ; the lark of the sky, the linnet of the grove.

Apart from the lark, the linnet has hardly any appreciable place in poetry ; yet no bird so nearly illustrates the majority of poets as "linnet."

The robin presents itself in four aspects to the British poet—"the bird of December,"—"a pious bird,"—"the privileged robber"—and the lover of Jenny Wren. When we think of the little acrobat in this delicious intrigue, the bright lines of Wyatt—

Ah ! Robin !

Joly Robin !

Tell me how thy Leman doth ?

are enchanting. As the bird "that pensive autumn cheers," "the bird of winter," and the Redbreast with "his tap-tapping" he is popular enough, while as the pretty undertakers of the "Birds in the Wood,"

Whose little corpses Robin Redbreast found,
And strewed with pious bill the leaves around,

robins have acquired a reputation of a semi-serious kind. Says Pope—"Ye pious redbreasts, deck his hearse" ; and Cowley has—

Robin Redbreasts, whom men praise

For pious birds, shall when I die

Make both my monument and elegy.

But it is of course as the guests of man in winter that they are their heartiest welcome.

Art thou the bird whom man loves best,
The pious bird with the scarlet breast,
Our little English Robin ;
The bird that comes about our doors
When autumn winds are sobbing ?
Art thou the Peter of Norway boors,
Their Thomas in Finland
And Russia far inland ;
The bird who by some name or other
All men who know thee call thee brother,
The darling of children and men ?

One alone,

The redbreast, sacred to the household gods,
Wisely regardful of the broiling sun,
In joyless fields and thorny thicket leaves
His shivering mates, and pays to trusted man
His annual visit. Half afraid, he first
Against the window beats ; then brisk alights
On the warm hearth ; then hopping o'er the floor,

Eyes all the smiling family askance,
 And pecks and starts and wonders where he is,
 Till, more familiar grown, the table crumbs
 Attract his slender feet.

The fidelity to nature in this well-known quotation invests the passage with a rare charm, and by itself, no doubt, has done much towards sustaining the poets' claim to be considered scholars in nature. But more striking, albeit not more delightful, are the poets' utterances about the swan; while the contrast between the passages about this bird that are written down from observation, and those that are merely imagined, are singularly felicitous to my present purpose. For in illustration of the poets' unfortunate tendency to hunt their images to death, and to prefer the fabulous to the real, at a great expense of grace and force, I cannot have a better example than the swan.

It was Milton who first wrote (at any rate in English) that

The swan with arched neck
 Rows her state with oary feet ;

but Keats has—

The swan, his neck of arched snow,
 Oars himself along with majesty.

Thomson says—

Arching proud his neck, with oary feet
 Bears forward ;

and Broome—

With snowy pride elate,
 Arch their high necks, and row along with state.

and so on, and so on, and so on, till the swan—so dreadfully "oary" does it become—might be a quinquereme rather than a bird. Again, the whiteness of the swan is notorious, and the story of Leda is a tolerably familiar one, yet the poets appear to be refreshed as with an original idea, whenever they can say "white as Leda's love." It would almost be worth a poet's while to pretend that Jove was a *black* swan, or speak of Othello as the colour of "Leda's paramour," "Blacker than Leda's love." The Hindu poets, by the way, place their white swans on black rivers ;¹ our poets have them on "silver" rivers—

As milk-white swans on streams of silver show ;

which is surely an error in art, to be retrieved only by reversing the colour of the bird.

But after all, it is "the death-divining" fiction that chiefly attracts

¹ *Drayton alone, true to nature, makes his Thames "blacke as Stix."*

the poets to this bird ; and endless changes are rung on "the sad dirge of her certain ending." Mrs. Hemans, standing up to her waist in reeds, and listening to a lonely swan "warbling his death chant," is a delightful picture to contemplate ; and again and again it seems as if the poet, in spite of his evident solemnity, was making fun, as Prior does on Turturella's demise, of "the doleful elegie" of "the soote-singing swanne." The poets, therefore, fail, either by borrowing from predecessors or furbishing up the fictions of antiquity, in investing the swan with any becoming measure of dignity or beauty. And then, what a sudden change when they go to Nature for their inspiration ! Their lines at once become beautiful, for they at once become true to their beautiful theme. Take only these on the swan at rest :

The white swans dream sweetly.—*Kcats.*
On the waters of the unruffled lake
Anchors her placid beauty.—*Wordsworth.*

or the swan angry :

Superbly frowning,
And with proud breast his own white shadow crowning,
Slants his neck.—*Kcats.*

The stately sailing swan
Gives out its snowy plumage to the gale,
And arching proud his neck, with oary feet
Bears forward fierce and guards his osier isle,
Protective of his young.—*Thomson.*

or the swan domestic :

Along the wild meandering shore to view
Obsequious Grace the winding swan pursue ;
He swells his lifted chest and backward flings
His bridling neck beneath his bow'ring wings.
On as he floats, the silvered waters flow,
Proud of the varying arch and moveless form of snow
With tender cares and mild domestic loves,
With furtive watch pursue her as she moves.
The female with a meeker charm succeeds,
And her brown little ones around her leads,
Nibbling the waterlilies as they pass,
Or playing wanton with the floating grass.
She, in a mother's care, her beauty's pride
Forgets, unwearied watching every side ;
Alternately they mount her back, and rest
Close by her mantling wings' embraces prest.

What admirable passages these are, and how sharply they

emphasize my complaint against the poets, that when they err from truth they err from beauty too. Nor, in the case of the next bird, the swallow—the last on my list of conspicuously “popular” birds—are the poets more just to themselves, for there is a penury of fancy and of sympathy which appears all the more striking from the poetry that legend and myth have gathered round the swallow—beloved in every country and sacred in most. This exceptional disregard of world-wide superstition seems indeed quite inexplicable, when we remember how readily, even rashly, they pursue other hints given by ancient myth and modern folk-lore, and how they swarm to such barren flowers as the dirge of the swan and to the dry breast of the poor old pelican.

They seem to think that Pandion had only one daughter, and to forget that Procne was Philomela's sister. They have no ears for Rhodes' glad song of welcome on the Swallow's Return, or sympathy with Rome's legend that swallows are the embodied spirits of dead children revisiting their homes. Why do they neglect these, when other traditions are so eagerly utilised? Was not the swallow sacred to antiquity as the bird that Noah loosed from the Ark when the dove failed him, as the bird that brought together our first parents from Serendib and Jedda when they had lost each other after the Fall, as the Egyptian hieroglyph of prosperity, the Chaldean bird of destiny consecrated in the Nameless City to the Penates, and all fateful to sunny Corinth? It is now beloved in every country of the modern world—“the bird of consolation” in the North, “the bird of the gentle beak” in the South, “the bird of the hearth” in the West, and “the bird of God” in the East. Is there nothing in all this to have given the swallow a new significance in our poets, to have rescued it from the commonplace? Apart from tradition, the climate-changing swallow that, slipt from the secret hand of Providence, comes all the way from Abyssinia to see the English daffodils blow is one of the oracles of Nature and the joyous prophet of the happy summer. Its song is an eternal hymn in praise of sunshine and of liberty. And why, then, should the poets, worrying Jove's bird into tatters and mumbling Philomela to the bone, have given so little thought or fancy to the swallow? Its absence from Byzia made that city a by-word throughout Thrace, and the fate of Bessus made its note a perpetual augury to Greece. Yet our poets find no more to say of it than that it is “chattering,” “twittering,” “prating”; that it “darts,” “skims,” “wheels,” “jurks,” and “jurkles”; that it is “blithe,” and “sportive,” and “wanton”; and

privileged above the rest
Of all the birds as man's familiar guest,—

which is handsome but untrue. From the bird that gave such momentous fortunes to Egyptian Thebes they take only this profound augury :

When swallows fleet soar high and sport in air,
He told us that the welkin would be clear.

Cowper sees it catch a locust, and remonstrates with it—

Ah, for pity drop the prize,
Let it not with truth be said
That a songster gasps or dies,
That a songster may be fed :

never remembering that Lemnos commended the swallow¹ for its destruction of locusts.

Summer owes to one poet its supreme epithet, the "swallow summer," and the seasons theirs, "the swallow-seasons"; but among the rest the best simile that can be found for the bird that obeys the sun, is a newspaper that "rats" in its political opinions !

It is not, of course, to be expected in those short "swallow-flights of song," where the poet just dips a wing in a thought and skims away along the surface, that he should burden his line with a fact where it is enough for his purpose if he brighten it with an idea. But it is surely sufficient to justify remark when the poets who spit themselves so punctually on Philomela's thorn, who insist on keeping the eagle company till it gets into the middle of the sun, and who poke ravens' beaks so diligently into corpses, should have taken no notice of the curiously beautiful growth of superstition round the swallow. Why, Cowper even pretends that there is not tradition enough, and concocts a fiction for himself—that it sleeps on the wing. It is bad enough that he did not purge himself of that same heresy with regard to the bird of Paradise, but that he should extend it with a high hand to the swallow is intolerable.

As the swallow's most notable points, the poets select, as I have already hinted, its "twitter" and its "skimming." Even Keats, who lay on his back half his life looking up into the sky, had nothing better to say of Procne than that she "twittered"; while the number of poets that have been grateful to it for being swift enough to afford a simile is mournfully great. But do no other birds "skim" except the swallow? Has no poet ever seen a hawk on a moor, an owl on the summer fields, a gull on the wave, a martin on a cliff? And as for velocity in flight, does the swallow arrogate a monopoly of speed? Will it dare to give the swift a start? Or for rapidity sufficient to

¹ With the lark.

wing any thought, are there not the merlin and the homing-pigeon, the kestrel and the kingfisher, and many another bird of "arrowy" flight?

In swallow life, again, there is one episode above all the rest instinct with significance, the mustering of these little sun-worshippers for the great autumnal pilgrimage. No one seeing them even once could fail to understand the meaning of this gathering of the feathered clans, or to sympathise with the ruddy-throated ministers of the summer. How consumed they are with restless impatience to be off after the summer! yet, how obedient to an irresistible discipline! Each bird in the vast Hegira is nervously anxious to start, proud of its powers of flight, and unable to resist altogether the instinct of its wings; yet, how punctilious in waiting for the rest! There is no mistaking the meaning of the multitudinous welcome extended to each batch of new arrivals, "Better late than never—twitter, twitter!" Nor can there be more than one explanation of those sudden impulses to launch out into the deep-sea air, often checked as soon as they arise, but as often tempting the little travellers to take just one and then another and then a third preliminary sweep round the sky. Yet Thomson, after watching them diligently, came to the conclusion that they were gathered "for play," and were having one last good game together "ere to their wintry slumbers they retired"! It is true that he gives them the choice of

clinging in clusters
Beneath the mouldering bark, or where
Unpierced by frost the cavern sweats,

or of being "conveyed into warmer climes"; but it is incomprehensible that he should have even given them a choice.

Here and there, of course, there is a pretty word or even a thoughtful phrase; but the sum of these random beauties does not compensate for the general treatment of this bird, which is emphatically commonplace.

With this bird, then, closes my list, for in one aspect or another I have almost exhausted in the course of review the complete ornithology of poetry. There remain, of course, the winged things of pure fancy—

Such as Dame Nature selfe mote feare to see—

the phoenix, in which the poets delight, the no less convenient harpy,

and the gryphon—all those mysterious “flitter-winged” fowls that are to be found in the mythland of *Lalla Rookh*¹ and

Such as in idle fantasies do flit,

“ring-birds” and “waker-birds,” “fly-birds” and “snow-birds,”
“Sultanas” and “Strundt Jagers,” and all the rest—

birds
That 'twould have puzzled Adam
To have named.

But as these belong to the pure fauna of fiction, they need no longer reference here. For my concern has been only with the actual feathered things that the poets make use of, and with the manner of the use they make.

I had thought, and so perhaps many may still think, that poets were not merely courtiers of Nature, as naturalists are, but were her Privy Council, her Sanhedrin, her Council of Three. Indeed, I had often read that they were even of a nearer affinity than this. They were “Nature's children,” and the great mother loved to unbosom herself to them, and to whisper in their ears secrets that other men or women could not hear, and hearing could not understand. But I now fear this is hardly based on facts. There are, of course, hierarchs who seem to speak with the very voice of Nature herself, but

O how frail
To that large utterance of the early gods

is the language of the majority! They are “mere cuckoos of a poet's thoughts.”

PHIL ROBINSON.

¹ From Moore's profusion of birds, real and unreal, how aptly his own idea fits his own verse:—

So freshly fair
'That ne'er hath bird come nigh them,
But from his course through air
Hath been won downward by them,

THE PROBLEMS OF DISTRIBUTION AND THEIR SOLUTION.

PART II.

HAVING summarised in the preceding article¹ the chief facts relating to the distribution of the higher animals on the surface of the globe, and having indicated the boundaries of the six great regions into which, from a consideration of the distribution of life, the biologist divides the land areas of the earth, we may now enter upon the consideration of the explanations which biology is prepared to afford of the facts in question. It is necessary to bear in mind the cardinal fact that only two theories are possible respecting the distribution of life on the earth; as, indeed only two explanations may be offered concerning any other cosmical phenomena, whether relating to the world of life or to that of inorganic matter. In other words, we must either assume, in the first place, with regard to the distribution of life, or to the origin of species itself, that a supernatural, and therefore inexplicable, fiat in the beginning of things, created each species separately and independently, and placed it directly or indirectly in its special locality or home; or, secondly, we may elect to believe, on the theory of evolution, that the varied tribes of living beings are the descendants of pre-existing species; that variation and modification constitute great and continuously operating factors in moulding the living form; that species extend or limit their range of habitat according to the facilities or obstacles presented by their surroundings; and lastly, that physical and geological changes of the earth's surface are continually operating and influencing at once the relations of species, and the character and distribution of the life of any given area. Such are the two hypotheses which now, as of yore, appeal for acceptance, as explanatory of the living universe and its constitution. The first theory is entirely dogmatic and theological in its terms. Stamped by the *imprimatur* of the churches, it commended itself in a readily understood fashion to

¹ See *Gentleman's Magazine* for July.

the unscientific mind. An exercise of that unquestioning faith which the intellectual mind finds but chains and bondage in its endeavour to rightly interpret the facts of nature in their own light, is all-sufficient to establish the theory of the special creation of animal and plant species in their several localities, as a revelation of Supreme power. But the mind which accepts special creation dare not face nature. There is for such a mind no appeal to the external facts which surround it in the universe of life. There can be no intellectual analysis of belief in such a case; no intelligent questioning of the why and wherefore of the phenomena which the theorist endeavours to explain. The theory of evolution, on the other hand, finds its glory and its strength in its fearless interpretation of nature. There exists no peculiarity of life which it may not seek to explain. It is fettered by no considerations save those which foster reverence for truth, and which make for appreciation of the knowledge that "grows from more to more." Best of all, it has nothing to fear from the advancing tide of knowledge which itself has created and fostered; and it submits its deductions fearlessly and fully to every new light which the increase of research can direct upon them. Sir Joseph Hooker has put the case of Evolution *versus* Special Creation in the most forcible fashion, when, in speaking of the origin of species, he says: "There are two opinions accepted as accounting for this: one, that of independent creation, that species were created under their present form, singly or in pairs or in numbers; the other, that of Evolution, that all are the descendants of one or a few originally created simpler forms. The first doctrine is purely speculative, incapable from its very nature of proof; teaching nothing and suggesting nothing, it is the despair of investigators and inquiring minds. The other, whether true wholly or in part only, is gaining adherents rapidly, because most of the phenomena of plant life may be explained by it; because it has taught much that is indisputably proved; because it has suggested a multitude of prolific inquiries, and because it has directed many investigators to the discovery of new facts in all departments of Botany." What Sir Joseph Hooker says of evolution in its relations to botanical science may be more than re-echoed by students of distribution. As already remarked, the science of distribution has been actually created by evolution. Before the idea of the modification of species was ventilated, no science which could account for the diverse relationships of living beings in space was possible, because such explanation, on the theory of special creation, was not required. Only, therefore, on the

hypothesis of evolution can any explanation of the distribution of life be attempted. It may be likewise added that, in the facts of distribution, the evolution hypothesis finds one of its strongest supports.

In 1605 appeared a curious work, entitled "The Restitution of Decayed Intelligence in Antiquities, concerning the most noble and renowned English Nation." The author—one Verstegen—informs his readers in one chapter of the reasons for believing that the "Isle of Albion" had been connected by "firm land with Gallia, now named France, since the Flood of Noe." One passage from this quaint work interests exceedingly the student of distribution. It runs as follows: "Another reason there is that this separation hath been made since the Flood, which is also very considerable, and that is the patriarch Noe, having had with him in the ark all sorts of beasts, these then, after the Flood, being put forth of the ark to increase and multiply, did afterward in time disperse themselves over all parts of the continent or mainland; but long after—it could not be before—the ravenous wolf had made his kind nature known to man; and therefore no man, unless he were mad, would ever transport of that race out of the continent into the isles, no more than men will ever carry foxes (though they be less damageable) out of our continent into the Isle of Wight. But our Isle, as is aforesaid, continuing since the Flood fastened by nature unto the Great Continent, these wicked beasts did of themselves pass over. And if any should object that England hath no wolves on it, they may be answered that Scotland, being therewith conjoined, hath very many; and so England itself some time also had, until such time as King *Edgar* took order for the destroying of these throughout the whole realm."

That which to the contemporaries of Verstegen, as to many persons ignorant of the teachings of geology even in our own day, would seem a wild impossibility—namely, the junction of England and France by land-surface—is known to the tyro in geology to have been a plain reality. Convulsions and disconnections, as well as elevations and connections of land-surfaces, are among the most familiar facts of geological science, which views the land as an ever-shifting quantity amid the factors of physical change.

A brief allusion to some of the more familiar instances in which the association or connection of land-surfaces serves to account for a likeness of the contained life, may demonstrate that the author of "The Restitution of Decayed Intelligence in Antiquities" was, in his *day and generation*, groping successfully enough after the true cause of the likeness between the animals of Albion and Gaul. In the

Neotropical region of the geologist, the Island of Trinidad presents us with an excellent example of the bearing of geological change over the distribution of life. Geographically, Trinidad is one of the West Indian Islands; zoologically, Trinidad is a part of South America. Whilst the animals of the West Indian Islands are highly peculiar, as we have seen, those of Trinidad resemble the animals found in the neighbouring American area; and along with Trinidad we may class the islands of Tobago, Margarita, and Curaçoa as zoologically belonging to the South American Continent, and not to the Antilles. Close to Trinidad lie Grenada, Barbadoes, and St. Vincent; yet the geographical nearness of these three latter islands to Trinidad is completely overturned by the facts of distribution. What theory of the constitution of living beings and of the earth at large is competent to explain the immense differences which separate Trinidad and neighbouring islets in a zoological sense from the Antilles? On the theory of special creation, no explanation is possible. On the hypothesis of evolution, the main outlines of the problem and its solution are clear enough. The relations of Trinidad and South America are in reality the counterpart of those which Versteegen assumed existed between the "Isle of Albion" and Gaul. At a relatively and geologically "recent" date, there was land connection between Trinidad and the American Continent—such is the geological phase of the question. The biological aspect shows us a sufficient reason for the likeness of the fauna of Trinidad to South American life, by assuming that the processes of variation and change in its species have not yet had time sufficient at their disposal to establish differences of importance. Conversely, the Antilles form, as we have seen, a highly peculiar region for the opposite reason—namely, that these islands, once united to Central America, became detached at a remote period. This ancient separation prevented the inroad of the higher and later forms of life, whilst it would specialise and intensify the characters of the forms which these islands originally claimed as their own.

The case of other islands presents equally and in some cases even more notable and characteristic examples of the influence of isolation from or, conversely, of long-continued connection with continents upon the included life. Very interesting is it to note the extreme differences which prevail between the islands of Bali and Lombok in the Eastern Archipelago, each island being as large as Corsica. They are separated by the Straits of Lombok, which are about fifteen miles in width at their narrowest part. Despite the narrowness of this channel—which, however, bears evidence of its

antiquity in its great depth—these islands differ far more widely in the character of their animals and plants than do Britain and Japan. On the Australian side of the Straits we find Lombok, the outpost, so to speak, of the strange Australian land that lies beyond. On the Indian side lies Bali, essentially identical with the other islands of the Archipelago in the life which has already been described. Does the theory of special creation give any rational explanation amongst its tenets for this extraordinary dissimilarity between two apparently adjacent islands? Or, if we look in vain for such explanation from the side of special creation, does the theory of evolution, which postulates the long separation of Bali from Lombok as the primary cause of the divergence of their respective fauna, offer a satisfactory solution of the problem? There can be no hesitation in our choice of explanations; since, whilst the former hypothesis presents only a speculative faith as the reason of its being, the latter is founded upon geological facts, and upon evidence derived from the distribution of life at large.

Again, in the Oriental region, and within the limits of the Eastern Archipelago itself, we may meet with abundant instances of the same great truth, that the long isolation and separation of any land, however limited or however extended its area, must entail a corresponding divergence and specialisation of its included animals and plants. The history of islands becomes, in this view of matters, especially instructive to the naturalist. Java, Borneo, and Sumatra are thus regarded in a geographical sense as being nearly connected. Java and Sumatra are geographically near, whilst Borneo is more remote from the two former islands. But, curiously enough, whilst Borneo is thus removed from the vicinity of Sumatra, its included life resembles that of Sumatra, whilst the animals and plants of these two islands taken together, differ materially from those of Java. Thus, whilst at least 13 genera of quadrupeds are known to inhabit two or often three of the other Oriental areas—Borneo, Sumatra, and the Malay Peninsula—these genera are absent from Java, and they include, as Mr. Wallace remarks, such typical forms as the elephant, tapir, and Malayan bear. There are 25 genera of birds found as a rule in Sumatra, Borneo, and the Malayan peninsula, which are yet absent from Java; these birds including the jays, gapers, hornbills, cuckoos, pheasants, partridges, and other equally familiar forms. A second fact of importance in considering the relations of Java to its neighbour islands consists in certain marked similarities, which its animals are known to present to the Asiatic Continent. The mammals and birds of Java, in a word, “when not Malayan,

are almost all Indian or Siamese." How, then, are these two series of facts to be accounted for? How are we to explain, firstly, the dissimilarity of Java from Sumatra and Borneo, and its likeness to Indian and Siamese in respect of its included life? Again we appeal to the facts of geological change for a solution of the difficulties in question. If we suppose, firstly, that Himalayan species, driven southwards by climatal or other changes, found a home in Java; and, secondly, that the separation of Java from the adjoining lands took place long prior to the isolation of Borneo and Sumatra from the Malay peninsula, we may fully account at once for the persistence of Asiatic animals in Java, and for its differences from Borneo on the one hand and Sumatra on the other. In such an explanation, let us note, we must likewise take the facts of organic variation, producing change and modification of species, into account. The peculiarities of the Philippine Islands, which were separated in their turn earlier than Java from the mainland, can be accounted for on the same principle of isolation, entailing a corresponding modification of the life of any area.

No less interesting is the history of such islands as the Azores, and Galapagos, which represent "oceanic" islands, never connected with a continent or large land area; or the history of such isolated lands as the British islands, which are clearly of "continental" origin, and which once formed part of the larger land area to the south and west: whilst such islands as Madagascar or New Zealand present us with an instance of specialised land-surfaces, whose connection with continents is a thing of the very remote past. A reference to each of these islands will serve to establish more firmly and clearly in the mind the high importance of physical change as a paramount condition in determining the distribution of life on the globe.

The Azores and Galapagos islands are typically "oceanic." San Miguel, in the Azores, is 900 miles from the coast of Portugal as the nearest continental area; whilst the Galapagos are about 600 miles from the west coast of South America. In these islands we see exemplified the characters of "oceanic" islands. They are volcanic in nature, and represent rock masses upheaved from the sea-depths. As in oceanic islands, at large, there are no native quadrupeds, and none of the frog or toad class (*Amphibia*). In the Azores there is not a single native, terrestrial Vertebrate animal—no snake or lizard being found in addition to the already specified omissions; and no fresh-water fishes exist. The rabbits, weasels, rats, and mice of the Azores, and a single lizard, occurring in Madeira and Teneriffe likewise, are all importations; and of the eels and gold fish in the lakes

of the Azores, the same opinion may be expressed. Birds, land-shells, and insects constitute the animal population of these islands. Of 53 species of birds, 31 are waders or swimmers; and whilst 20 aquatic birds are residents, 18 of the land birds are permanent tenants. With three exceptions, the 18 land-birds, however (including the quail, robin, barn-owl, starling, wood-pigeon, etc.), are common in Europe and North Africa; the exceptions being the Atlantic chaffinch and the canary of the Madeira and the Canary Islands, and the peculiar Azorean bullfinch. There are no difficulties in the way of accounting satisfactorily for the existence even of these latter species. The bird-population of the Azores, as a whole, originated in the storm-driven or chance stragglers from other lands. The oriole, snow-bunting, and hoopoe even now are occasionally found in the Azores; and as the birds are most numerous in the Eastern islands of the Azores, Europe and Africa may be assumed to be the chief sources of supply of the bird-emigrants. The bullfinch of the Azores is, however, peculiar as well as interesting in its history. This bullfinch is a marked variety of the European species, just as other Azorean birds exhibit slight divergences from our own species. We see in this bird, in fact, the beginning of that work of modification, induced by the influence of new locality on the species, to which is due the endless variety of the earth's population as a whole. The insects and land-shells of these islands present clear traces of European relationship; and the botany of the Azores, showing us 480 various species of flowering-plants and ferns, also declares that 440 of these species occur in Europe. Even of the forty peculiar species of plants, all, save six, find a near relationship in European plants; and these six are related to the plants of the Canaries and Madeira. Like the birds, the land-shells, insects, and plants have reached the Azores as emigrants from the adjacent continents and islands. Means of dispersal and conveyance are abundant; and Darwin has shown how common are the methods whereby the lower and occasionally the higher forms of animals and plants can be distributed often to vast distances from their original home. Let us for a moment consider some of these casual or accidental means of dispersal.

Many seeds will, for example, resist for lengthened periods the action of sea-water. Out of 87 kinds of seeds, 64 germinated in Mr. Darwin's hands after twenty-eight days' immersion; and a few survived after 137 days' immersion. Ripe hazel nuts, when dried, floated for ninety days, and then germinated; and "an asparagus-plant with ripe berries floated for twenty-three days;

when dried, it floated for eighty-five days, and the seeds afterwards germinated." There is thus ample time and opportunity, so far as the vitality of many seeds is concerned, to enable them to be transported safely by ocean-currents to far-distant shores. Seeds are, again, often carried, impacted in the earth of floating roots of trees; and, as Darwin remarks, even the seeds of plants taken from the crops of dead birds floating on the surface of the sea, germinate when planted. Peas and vetches, "taken out of the crop of a pigeon, which had floated on artificial sea-water for thirty days, to my surprise," says Darwin, "nearly all germinated." Living birds, next, act as efficient transporters of seeds. The hard seeds of many fruits pass uninjured through the digestive system of birds, and germinate thereafter. Even when a bird, containing seeds in its digestive system, has been swallowed by a hawk or other bird of prey, the seeds may be preserved intact during this double intussusception, and, on being disgorged by the flesh-cater, may germinate. "Seeds of the oat, wheat, millet, canary, hemp, clover, and beet, germinated after having been from twelve to twenty-one hours in the stomachs of different birds of prey; and two seeds of beet grew after having been thus retained for two days and fourteen hours. As regards insects, locusts, says Darwin, may be "blown to great distances from the land." A locust was caught 370 miles from the coast of Africa. In November 1844, a swarm of locusts visited Madeira, and Darwin remarks that, as from locust-dung he extracted the seeds of seven grass plants, "A swarm of locusts such as that which visited Madeira, might readily be the means of introducing several kinds of plants into an island lying far from the mainland." More curious still is it to discover a means of plant-dispersal in the earth which adheres to the beak and feet of birds. From the leg of a woodcock, a little cake of dry earth weighing nine grains was removed by Mr. Darwin. In this earth a seed of the toad-rush was contained, and this seed germinated. From the seeds contained in the earth adhering to the leg of a partridge, which had been kept for three years, Mr. Darwin obtained 82 plants. "With such facts before us," says Mr. Darwin, "can we doubt that the many birds which are annually blown by gales across great spaces of ocean, and which annually migrate—for instance, the millions of quails across the Mediterranean—must occasionally transport a few seeds imbedded in dirt adhering to their feet or beaks?" The agency of icefloes and icebergs, which are frequently laden with earth, and which have been known even to transport the nest of a land bird, must likewise be considered as a means whereby transport of arctic

and antarctic species may have occurred. We must lastly add to these artificial methods of plant-dispersal, the natural means which exist in many plants for the diffusion of their offspring. Winged seeds and fruits are by no means uncommon; the *pappus* or down of the Dandelion and other *Compositæ* present familiar examples of natural contrivances for securing a wide distribution of their seeds; there are some flower-heads (*Acæna*) which adhere to the fur of animals or to the feathers of birds, like our familiar "burrs"; and other plants, again, possess more special contrivances still, for securing their adhesion to the animal integument.

The dispersal of animals in the same way is accomplished by natural and casual means. The power of flight and of swimming illustrate the former; whilst the conveyance of an animal on driftwood, or the chance dispersal of their eggs by other animals or upon plants, exemplify the accidental methods of diffusion. The minute eggs of fishes have been known to adhere to the plumage of aquatic birds; even water-insects may transport fish-ova. The young of shell-fish, like the cockle and oyster, at first swim freely in the sea, and may migrate to vast distances; and certain shell-fish (*e.g.* fresh-water snails) deposit their eggs upon aquatic plants, which may likewise be conveyed for many miles by currents. That the feet of aquatic birds may convey minute or embryonic shell-fish to great distances is rendered probable by observations of Mr. Darwin; and the same high authority remarks on the agency of aquatic birds in conveying seeds which are contained in the mud of ponds adhering to their feet. With regard to the dispersal of insects, the power of flight is seen to confer obvious advantages upon this class of animals. Even quadrupeds appear to possess occasional powers of dispersal, which may account for their presence in situations that at first sight would seem inaccessible to the race. The tiger is known to be a powerful swimmer; and the pig, popularly credited with being inefficient in the water, has been proved to be a swift swimmer likewise. Quadrupeds may also be conveyed long distances on driftwood, and may thus chance to be deposited in localities far removed from their original habitat.

There is little difficulty in accounting for the mechanical means and conditions whereby the dispersal of animals and plants is secured. Hence returning to the question of island-population, we find in the Azores a collection of animals and plants, obviously derived from adjoining areas, and which has as yet had but little time to develop, through variation, a general distinctness of its own.

The Galapagos Islands present, as we have seen, the common

features of "oceanic" islands, in the absence of native quadrupeds and amphibians, and in the fact that they are of volcanic origin. They differ from the Azores, however, in that they possess two species of snakes, lizards, and land-tortoises—the latter being of large size. A single mouse exists in these islands; but this quadruped belongs to an American genus, and was probably introduced, since these islands have been largely visited for 300 years back by sailors. The tortoises are regarded as having been derived from the American continent, and the lizards, of which there are five, are likewise typically American in their character. That tortoises and lizards can travel for long distances by water cannot be doubted; and the fact that snakes occur in the Galapagos, and may have reached these islands by swimming—seeing that they are related to South American serpents—is explained by the knowledge that snakes may swim for long distances. A boa constrictor has been known to swim to St. Vincent from the South American coast, a distance of at least 200 miles. The birds of the Galapagos number 57 species—38 species being peculiar to the islands. But the study of the birds is rendered extremely interesting by the fact that we notice amidst their ranks all shades of likeness and divergence from continental forms. Some species are identical with American birds, whilst others are different from well-nigh all other bird forms. Thus there is the rice bird of Canada and the United States remaining unchanged in the Galapagos Islands; whilst the short-eared owl, which, as Mr. Wallace says, "ranges from China to Ireland," evinces a slight variation in its Galapagos form from the familiar home bird. The finches and sugar birds of the Galapagos exist as distinct genera, and represent forms which, restricted in range even in South America, have kept their chief peculiarities intact, and have developed others sufficiently distinct to render their race peculiar to these islands. Casual migration, along with a comparatively undisturbed residence in these islands, together explain the distinct character of the bird population, as well as of the lower denizens of the Galapagos.

If the effects of land-separation and isolation are typically witnessed in the case of the "oceanic" islands, the opposite results of recent land-connections with continental areas are seen in the history of the "continental" islands. Of these islands Great Britain and Ireland form typical examples, as likewise do Japan, Borneo, Java, and other areas. The "continental" islands evince a close connection with the motherland in the usually shallow sea—not as a rule exceeding 100 fathoms in depth—which separates them from the continent. They possess quadrupeds and reptiles, and these animals,

along with the remaining fauna, exhibit, as a rule, a close likeness to the life of the larger area. All around the British Isles the 100-fathom line persists, and joins Britain to Denmark, Holland, Belgium, and France, as well as to Ireland on the west. The geological proofs of our "recent" union with the continent are numerous and indisputable. Probably after the greatest intensity of the glacial epoch, Britain joined the continent for the last time; and as our quadrupeds are identical for the most part with those of France and the continent, there can be little hesitation in endorsing the geological opinion from the zoological standpoint. Possibly submergence after Britain received its continental migrants, may account for our paucity of species, when compared with continental life; this subsidence destroying and limiting what would otherwise have been an abundant fauna. For we discover that whilst Belgium has 22 species of reptiles and amphibia, Britain possesses but 13, whilst Ireland has but 4 species—this latter result being due to the depth of the Irish Sea, which is greater than that of the German Ocean: a fact pointing to the more remote separation of Ireland, as compared with the continental connections of Britain. Our islands possess, it must be remarked, certain peculiar birds; they are rich in peculiar fishes, and probably in mosses of special kinds as well. But whilst these peculiarities point to the existence of conditions which favour specialisation of form, they do not in any sense oppose the idea—strengthened into absolute fact by all the considerations of geology and biology—namely, that at no remote date, but "recently" in a geological sense, the "land of the free" itself had no special identity of its own, and that all its future individuality was merged in its continuity with the great continental area around.

A brief reference to the peculiarities of Madagascar and New Zealand may serve to conclude our reflections on islands and detached land areas, as illustrative of the geological factors which regulate the distribution of life on the earth's surface. The peculiarities of New Zealand as a biological province have already been discussed. Its want of native mammals and snakes, its single frog, its peculiar lizard, and its living and extinct wingless birds, as well as certain characters of its plant-life, mark it out as especially peculiar. No less specialised and peculiar, on the other hand, is Madagascar, the zoology of which has likewise been described. The differences of its animals from those of the African continent; its peculiar lemurs; its special insectivora and carnivora, and rodents; and its other biological features, render this great island a highly specialised part of the world's surface. New Zealand and

Madagascar stand out prominently before us as examples of "ancient continental islands." That "once upon a time" they formed part of a continental area, no one may doubt; but that their separation has been so remote as well-nigh to justify the appellation of "oceanic" islands, is also a logical deduction from their biological history. In Madagascar and New Zealand are beheld, in a word, the effects of isolation, which, depending in turn upon geological changes and the submergence of land, gives to the latter agencies their great power in modifying the life of the globe. "Such islands," says Mr. Wallace, "preserve to us the record of a bye-gone world—of a period when many of the higher types had not yet come into existence, and when the distribution of others was very different from what prevails at the present day." It is in islands such as Madagascar and New Zealand, that we see preserved to us the remnants of a fauna that may once have been of world-wide extent. Mr. Wallace, again, remarks that "A partial subsidence will have led to the extinction of some of the types that were originally preserved, and may leave the ancient fauna in a very fragmentary state; while subsequent elevations may have brought it so near to the continent that some immigration, even of mammalia, may have taken place. If these elevations and subsidences occurred several times over, though never to such an extent as again to unite the island with the continent, it is evident that a very complex result might be produced; for, besides the relics of the ancient fauna, we might have successive immigrations from surrounding lands, reaching down to the era of existing species." Thus, in the life of Madagascar, we see the results of isolation interrupted by periods of connection with large continental areas. The fact that the lemurs of Madagascar exist likewise in West Africa, in the Indian region, Ceylon, and the Malay Archipelago, is explicable—not by supposing a direct land connection occupying the site of the Indian Ocean—but by regarding these animals as presenting us, in Madagascar, with the remnants, secured from harm by isolation, of a once widely distributed lemur-population. This group of animals, doubtfully classified to-day as the lowest order of the monkey-tribe, as we know from the evidence of fossils, overran Europe in the Eocene period of geology. We know that Africa was separated from Europe and Asia in the Tertiary period by a large sea-area. Thus, late in its history, were outlined the bounds of the Ethiopia which the biologist has defined, and which, as we have seen, has the desert region as its northern and natural boundary. Joined to Africa in its earlier phases as an island, Madagascar doubtless

received from Africa the lower quadrupeds, reptiles, insects, and other forms bearing evidence of a distant Australian or New World relationship. Then came the separation of Madagascar from the African continent—a phase of its history which left that island to mature and develop the modified and peculiar species we see within its limits to-day. At the same time this separation protected it from the inroads of the higher animals coming from the north, which we now find amongst the existing African fauna.

Similarly, the problem of the likenesses and differences between the life of New Zealand and Australia are explicable only upon the idea—supported by strong geological evidence—of land changes of curious and complex character. Thus East Australia must have been separated from Western Australia in the Chalk period; and whilst New Zealand was connected by shallow water with tropical Australia, it was sharply demarcated from temperate Australia by a deep sea. Thus is explained the fact of the plants which are common to Australia and New Zealand being tropical and subtropical in their nature. Direct land-connection between the two countries, but a connection which at the same time was anything but equivalent to continuity with existing Australia—seeing that the latter was practically halved in the Chalk period—explains the means whereby the underlying likeness between the life of these islands was established.

By way of establishing still more firmly the truth of the axiom that physical change forms one of the two main factors involved in the regulation of life and its distribution, we may lastly glance at the history of that peculiar race of quadrupeds, the *Marsupials*, or "pouched" mammals, in their relations to Australia as their head-quarters and home. These animals, possessing the kangaroo as their most familiar representative, are, with one exception, confined to Australia, along with certain other and lower quadrupeds, such as the *Ornithorhynchus* and *Echidna*. The exception to the rule that the two lowest orders of quadrupeds are confined to the Australian region is the opossum family (*Didelphidae*), which occurs in the New World. Bearing in mind the facts that, firstly, save a few recently introduced bats and a rodent or two, Australia has no native mammals of higher grade; that, secondly, the kangaroo and its neighbours represent in that land the fulness of quadruped-life elsewhere; and that, thirdly, save the opossums, those animals are absolutely confined to Australia,—how, it may be asked, are these peculiarities to be accounted for? If the theory of special creation be appealed to, it would find it necessary to insist, in

virtue of its own terms, that the marsupials were created where we now find them. Such a theory, however, supplies no intellectual reason why the opossum, a typical enough marsupial, should have been created in the New World, and thus have been left mysteriously and arbitrarily outside the limits of the Marsupial or Australian territory. Let us endeavour to ascertain what explanation of these apparently anomalous facts the science of distribution can afford.

Firstly, from the geological side comes the evidence that Australia has never possessed, at any time, any native quadrupeds of higher type. All the fossil remains of the Tertiary and Post-Tertiary Age discovered in Australia are those of Marsupials, often of giant size, but still allied to the existing quadrupeds of the region. But geology opens up a new vista of thought before us when it reveals the fact that in the earliest Tertiary period Marsupials occurred in Europe, these being the remains of opossums. In older deposits—that is, in the Oolite and Trias—of Europe, occur the remains of Marsupials, some of which are well-nigh identical with the little banded anteater (*Myrmecobius*) occurring in the Australia of to-day. Passing to North America, we discover in the Triassic rocks of that continent the *Dromatherium*, likewise an ally of the living anteater of Australia. So far, therefore, from Marsupials having mysteriously sprung into being in Australia, we discover that in Triassic times they existed not only in Europe but in North America, and that, in fact, they may be regarded as having possessed a wide Palæarctic range in that period and in its succeeding Oolitic epoch likewise.

Let us note, again, that the marsupial and allied quadrupeds resembling the ornithorhynchus were the oldest and earliest in time, as well as the lowest in structure. The problem of the origin of the Australian quadrupeds and of their distribution is not now difficult of solution. We pass backwards in imagination to the Triassic and Oolitic times to behold, then, the dawn of mammalian life. We see the Marsupial tribes representing, in the ancient Palæarctic region, the fulness of the quadruped life that was afterwards to dawn. No higher form of mammalian existence was then to be seen. The carnivora and rodents, the bats and apes, the hoofed quadrupeds, and the variety of mammalian life that marks our day, was as yet unknown. But Australia at this period is in geographical connection with the Asiatic continent. Over a continuous land-surface, these earliest quadrupeds pass to people the Australian territory. Next comes the separation of Australia from Asia. The Malay Archipelago represents the broken and divided land-connection, first severed probably at the Straits of Lombok. The higher tribes of quadrupeds are

evolved from the lower tribes in the ancient Europeo-Asiatic continent. The defenceless lower Marsupials are worsted in the "struggle for existence" that ensues. The higher "tooth and claw" exterminate the lower races in the Palæarctic region; but in Australia the isolated, these Marsupials, free from the irruption of later carnivores with tooth and claw, and protected by the intervening sea from the inroad of the higher quadruped-races, flourish and grow. As time passes, the original species of Marsupials—that is, the first emigrants to Australia—vary, and, through variation, produce new races and species of these quadrupeds. Australia in due time develops a quadruped population of its own, which repeats the varied features of mammalian existence elsewhere. Thus again there is presented to our view an illustration of the double work of land alteration and specific or biological change, in developing a strange and wondrous population on the surface of the earth.

Last of all, the history of the opossums and their distribution, now limited to the New World, falls under the sway of the same efficient explanation, supported by every fact of life and by all the details of geological science.

Commencing their existence in the Palæarctic region—their fossil remains occurring, for example, in the Eocene rocks of France—the opossums represent a race which never at any period of their existence have dwelt in Australian territory. Their occurrence in America is explicable, not on any theory of possible connection between America and Australia, but on the plain hypothesis of their migration to the New World by a continuous land-surface in the middle or towards the end of the Tertiary period, from Europe or from Northern Asia as a centre. Their earliest fossils, in the New World, occur in the American Post-Pliocene—that is, long after their first appearance in European formations. Passing thus to the New World, the opossums migrated southwards, where they flourished and grew apace, comparatively unmolested by carnivora or other enemies. Again extending their range northwards, they are found in North America; and they thus represent in the Western Hemisphere a flourishing remnant of a race killed off from the Old World, and driven, by stress of outward circumstances, to seek refuge in the New.

Not less interesting is it to find that the existing life of Australia at large fully endorses the biological dictum that in this island territory we find still represented the life which was once world-wide in its extent in the Triassic and Oolitic period, in which period Australia severed its connection with the Asiatic continent. As the Marsupial

quadrupeds of the Oolite overran the existing land area of that day, so they flourish, and flourish alone, in the Australia we ourselves know. As the spine-bearing Port Jackson shark swims in the Australian seas to-day, so the spiny fishes *Acrodus* and *Strophodus* swam in the Oolitic seas that washed Palæarctic and other coasts. As the shell-fish *Trigonia* lived in the seas of the Stonesfield Slate period around our shores, so that *Trigonia* still persists on the Australian coasts alone. And, lastly, as the Araucarian pines and cycads grew in Oolitic times in our own area, so they grow now in Australian territory—a remnant, like the quadrupeds and fishes, of a flora and fauna once well-nigh universal, but now limited to the region of the earth wherein alone the original conditions of their life are truly represented.

If geological change isolating or uniting land areas, and the variation and modification of species consequent upon such separation or union, be thus credited with constituting the great factors and powers which have produced the existing distribution of animals and plants, and which have regulated that distribution in all time past, we may now briefly glance at the main features which the great biological regions of the world have exhibited in relation to the changes and alterations of their boundaries they have from time to time undergone.

Whilst the late Sir Charles Lyell and other geologists were found not so long ago to declare that the great continents of the world "shift their positions entirely in the course of ages," a clearer understanding of geological evidence has completely established the doctrine of the permanence of the great continental areas, and of the general stability in time of the main masses of the land. It is needful to make ourselves acquainted with this fact, inasmuch as, if the distribution of life depends primarily on the distribution of land and sea, a clear understanding of the agencies regulating the development of animals and plants on the globe will be gained only when the physical changes in question are duly appreciated. The geological evidence, then, goes to prove that, whilst the general mass of the continents has remained unchanged, their minor features and more intimate details have been subjected to frequent disturbance. Thus in the past, as at present, the uniformity of geological action postulates the work of rivers in eroding the land, of the sea in defacing the coasts, of ice in carving the land surface, and of volcanic action in depressing this area or elevating that, and in causing the sea to flow here, or to repress its march there. Professor A. Geikie maintains that the stratified rocks, instead of being formed in the beds of deep

oceans, "have all been deposited in comparatively shallow water." And, again, this eminent geologist remarks of the manner in which this earth's materials have been formed, that "From all this evidence, we may legitimately conclude that the present land of the globe, though formed in great measure of marine formations, has never lain under the deep sea ; but that its site must always have been near land. Even its thick marine limestones," adds Professor Geikie, "are the deposits of comparatively shallow water."

Thus with the proofs of the general permanence and stability of our great continents at hand, we can completely account for all the plainer facts, and for many of the difficulties, of distribution. For example, we infer that about the middle of the Tertiary period, Europe and Asia, as at present, formed one continuous land surface, which contained as its inhabitants the elephants, rhinoceroses, giraffes, apes, and other forms now found only in the Oriental and Ethiopian regions. Antelopes were then found in Southern Europe, and the giraffes extended from the South of Europe to the North of India. But we must likewise take account of those more intimate changes of land and sea which accompanied the general permanence of the continents. At the time we are considering, Africa south of the desert was a large island ; India and Ceylon were isolated by sea from Asia ; Northern Africa was united to the South of Europe ; Asia Minor was joined to Greece ;—the outlines of the great zoological regions of the Old World were, in short, actually mapped out in the middle of the Tertiary period in the then existing lands and seas. But neither the detached India nor the isolated Africa possessed the abundant quadruped life of Europe and Asia. They possessed only the lower life of the Eocene time. When, however, the next series of physical alterations took place, when land passages arose between Europe and Asia together on the one hand, and Africa and India on the other, the higher quadrupeds migrated to these areas. There some adapted themselves to their new conditions, and flourished in their new localities, whilst others succumbed to the more rigorous surroundings which faced them. The antelopes, for instance, migrating to Africa, flourished in Ethiopia, because there they found a plentiful vegetation and the other conditions of life calculated to produce the development of new species by the modification of the old. The bears and deer are unknown in Africa, on the contrary, since they were later comers in European territory, and because they found migration a difficult or impossible task. The fauna which Europe then gave to Ethiopia was killed off in the former by the climatal changes which succeeded these

Miocene times, and which left the region to be peopled after the glacial cold, by the hardier forms which we now call our representative animals. Similarly, India as the Oriental province possessed when detached from Asia its own lower Edentates, and its lemurs; but when it became united with the Asiatic continent, it received from the north, like Africa, its new complement of animals—its monkeys, tigers, elephants, and other forms—these animals arising in the ancient Palæarctic land, whence, as we have seen, the earlier marsupials themselves migrated to people the other quarters of the globe.

The history of the New World is equally instructive, both as regards the proofs it supplies of the permanence of the continents, along with the evidences of the same laws of dispersal and migration of life which the consideration of the Old World areas affords. The first fact of importance in the scientific history of the New World areas consists in the knowledge that in the Post-Pliocene times the life of the Nearctic region approached very closely to that of the Palæarctic province. In the Post-Pliocene formations of America, we find the fossil remains of numerous carnivora, horses, camels, bisons, and elephants. Of the living elephants, as we have seen, the existing New World knows nothing. The horses were reintroduced by man; whilst the buffalo certainly represents the bisons, and the llamas similarly represent the camels. Before the Post-Pliocene time, geology reveals that America possessed rhinoceroses, special forms of ruminants, and a porcupine decidedly of Old World type. In the still earlier Miocene period, North America had its lemurs—now limited to India, Africa, and Madagascar—many carnivora, camels, deer, and tapirs. Earlier still, that is, in the Eocene period, there lived in North America animals unlike any forms now existent. There were the Tillodonts and Dinoceratidæ of Professor Marsh, which appear to have united in themselves the characters of several distinct orders of quadrupeds. There is thus every reason to believe that in the Post-Pliocene period, at least, and in earlier times likewise, there was free land communication between the Palæarctic and Nearctic areas. So that it requires no stretch of hypothesis to assume that the horses, camels, elephants, and other quadrupeds of America—proved to be near allies of European fossil forms—must have freely intermingled with those of Europe. That Europe, or, more properly, the Palæarctic region, must have been the original source whence the Nearctic land obtained its mastodons, porcupines, deer, and other quadrupeds, is proved by the fact that these animals are known to have lived and flourished in Europe long

before they occurred in America. So that, as Mr. Wallace puts it, "As the theory of evolution does not admit the independent development of the same group in two disconnected regions to be possible, we are forced to conclude that these animals have migrated from one continent to the other. Camels, and perhaps ancestral horses," adds Mr. Wallace, "on the other hand, were more abundant and more ancient in America, and may have migrated thence into Northern Asia." The physical difficulties of such a land connection at Behring's Straits or across Baffin's Bay, are not, it may be remarked, by any means insuperable.

Then, likewise, we must take into account the share which South America, or the Neotropical region, has had in influencing the distribution of life in the New World at large. North America seems in the Post-Pliocene epoch to have been a literal focus wherein Palearctic life commingled with life from the South. Thus the North American Post-Pliocene deposits give us sloths and other forms of Edentate mammals, llamas, tapirs, and peccaries, all of which are typically South American; whilst some are identical with living Neotropical species. The bone-caves of South America show us that this region, like Australia, possessed in Post-Pliocene times the same description of quadruped life that now distinguishes it. As giant kangaroos lived in Australia, so gigantic sloths and armadillos lived in South America; and its chinchillas, spiny rats, bats, and peculiar monkeys were likewise existent then as now. In addition, we find that, as North America possessed its peculiar groups of lower quadrupeds in its tillodonts and other forms, so South America likewise had its special types of life, such as the *Macrauchenia*, resembling the tapirs, and the *Toxodonts*, related at once to the hoofed quadrupeds and to other groups. But, whilst the quadruped immigrations into North America likewise affected South America, it must be borne in mind that the isolation and separation of South America from the northern part of the continent, as indicated by its regional distinctness, must have largely influenced the development of its own peculiar life—just, indeed, as the peculiarities of North America are due to its separation, in turn, from the Palearctic area. And when we further discover the all-important fact that the fishes on each side of the Isthmus of Panama are identical, the theory of the relatively recent continuity of sea at this point, and the consequent separation of Neotropical from Nearctic land, rises into the domain of fact. Thus we see in North America a region which has repeatedly received and exchanged tenants with the great Europeo-Asiatic continent; which has, in consequence, developed a

close resemblance to the life of the Palearctic region ; and which has, likewise, been to a slight extent modified by the migration northwards of southern forms. In the life of South America we perceive, on the other hand, the results of longer isolation and greater specialisation. There the development of special forms of life has accordingly progressed to a much greater extent than in North America ; and the effect of a commingling of types has been largely prevented by its relatively recent junction with Nearctic land. As in Australia, the lower types of quadruped life have been preserved by the isolation of that area, so in South America, the preservation of the sloths, armadillos, and anteaters, and the development of special forms of monkeys and other quadrupeds are to be regarded as the fruits of that separation which secures protection to lower and comparatively defenceless life.

A glance at some of the difficulties of distribution, and a reference to the influence of migration upon the distribution of life, may draw our consideration of this topic to a close. The progress of any science from the stage wherein it formulates its beliefs in theory, to that when its theories rise through cumulative proof into the higher region of fact, is not accomplished without trial and tribulation. Criticism, destructive and constructive, is the lot of every scientific theory. But the earnest and unbiassed mind welcomes the criticism wherein the trial of its beliefs is contained, as the honest mind gauges the tenability of its beliefs by the residue, large or small, of solid fact which it is able to collect after the critical assault upon its stronghold is overpast. Of the science of distribution it may be said that its evil days are fairly past. Critics it has had, and biological opinions may even now be found to differ regarding the minor details of its constitution. But the larger and more fundamental propositions of distributional science remain untouched. They have passed out of the sphere of discussion, and have taken their place amongst the stable facts of the scientific system. It is necessary, however, to detail one or two examples of the difficulties which may still disturb the complexion of the scientific mind, and which are ever welcome to the devotees of a science, since they afford the means whereby the weak points and the unsettled problems of the science may be strengthened and solved.

Of such difficulties, then, let us specify a few instances, by way of showing how readily their solution may, through careful consideration, be obtained. Mr. Sclater has specified in a highly distinct manner, a few of the knotty points that await the student of distribution, and has thus afforded opportunity for the discussion of the

subject, and for their explanation or modification by the exercise of scientific acumen and research. Taking the case of the lemurs—those curious quadrupeds usually classified as lower monkeys—we are presented with certain apparent anomalies in their distribution over the surface of the globe. Thus the lemurs have their head-quarters in Madagascar, as already remarked, but they also occur in the Eastern Archipelago. They are scattered, to use the words of Mr. Wallace, “from Sierra Leone to Celebes, and from Natal to Eastern Bengal and South China.” How, it may be asked, can the apparently erratic nature of the distribution of these animals be accounted for? and how can the facts of such a straggling population be harmonised with those conceptions of orderly biological and physical laws on which the science of distribution bases its existence?

Mr. Sclater himself, in 1864, postulated the former existence of a continent occupying the site of the existing Indian Ocean. This continent, named *Lemuria*, he conceived might have formed the head-quarters of the lemur group, whence they became radiated and dispersed east and west. Such a hypothesis is no longer required, however, to account for the curious distribution of the lemurs. In the light of new facts, and especially in the face of geological evidence, the existence of the theoretical “Lemuria” is rendered unnecessary. Mr. Sclater’s perfectly justifiable supposition has simply been superseded by more natural explanations of the distribution of the lemurs, whilst the views entertained regarding the permanence of the great ocean basins and of the continental land areas are likewise opposed to the theory of a former land-connection between the Ethiopian and Oriental territories. For what are the geological facts concerning the range of the lemurs in the past? Their fossil remains occur in the Eocene rocks of France—that is, in the lowest and oldest of the Tertiary deposits—the remains in question being those of a form allied to the existing “potto” of West Africa; and in North America, where the lemurs exist to-day, the Lower Eocene rocks afford evidence of their existence in the past of the New World. So that we find at the outset our difficulties largely resolved by the bare mention of the idea that the existing anomalies in the range of the lemurs really depend upon their past history. In a word, as the “Marsupial” population of Australia is to be regarded as a survival, owing to land separation, of an animal class once world-wide in its range, so the lemurs now found at distant points in Africa and Asia, are merely the survivals of a lemurine family circle once represented both in the Old World and in the New. We know of their existence in

Eocene times in Europe, and thence they probably spread in all directions—to Africa, Madagascar, Asia, and elsewhere. Killed off over the general area inhabited by their race, the lemurs have remained in the environs of the earth, so to speak, because there, to this day, the competition with higher forms is not too severe. Like the American opossums, the lemurs represent to-day the mere remnants of a once world-wide class. Their distribution has not been one from Asia to Africa, or *vice versa*, through a once existent "Lemuria," but has really been a diffusion from Europe, or the Palæarctic region probably, to the adjoining regions and to the New World.

A second case of difficulty in connection with the distribution of quadrupeds is that of the peculiar animals forming the order *Insectivora*, a group familiarly represented by the moles, shrews, and hedgehogs. This order of quadrupeds is highly singular in its range and distribution. It is entirely unrepresented in Australia and South America, and its representative species occur in the Palæarctic, Oriental, and Ethiopian regions; whilst North America also possesses moles and shrews, probably of very recent introduction into that continent. But more curious still is the fact that the Insectivora include certain peculiar and isolated animals, which inhabit detached regions, and which present problems for solution in the way of an explanation of the how and why of their existence on the earth's surface. For example, a curious animal (*Solenodon*) is found only in two West Indian Islands, namely, in Cuba and Hayti. Again, the nearest relations of *Solenodon* occur in Madagascar, where, under the name of the *Centetide* or "Madagascar hedgehogs," they flourish in numbers. Thus we are required to explain the following facts: Firstly, the detached existence of *Solenodon* in the Antilles; secondly, the similarly isolated distribution of the species of *Centetes* in Madagascar; and thirdly, the absence of any species of *Centetes* in the intervening African continent.

In attempting to solve these problems we find that the way of investigation lies along the same lines as those which lead to a solution of the case of the lemurs. The existing Insectivora are small animals, mostly living in areas where they are removed from the direct effects of competition with other and stronger forms. Their fossil history is fragmentary but important; for we discover a link that connects *Solenodon* of the New World with *Centetes* of the Old World, in the fossil *Centetide* which occur in European deposits of Lower Miocene age. With even this solitary fact at hand, we begin to discover that the problem before us is not the bridging of the gulf between the West Indies and Madagascar, but the simpler

task of accounting for the survival in out-of-the-way corners of the earth of a group once far more widely distributed. Thus Madagascar obtained its species of *Centetes* just as the West Indies obtained their *Solenodon*, namely, at a time when land-connection with a larger land-area permitted these insectivores to gain admittance to what was shortly to become a detached island-area. As has been pointed out, the conditions of life which exist in Madagascar closely resemble those of the Antilles, and both differ in turn from the conditions that prevail on the adjacent continents. There is an absence of large quadrupeds, a lack of carnivores, a complete separation from larger areas by deep sea, and, in fact, a full representation of all the conditions which suit these insectivores, just as conversely on the continents the conditions are unfavourable to the prosperity and increase of their race. We do not require to connect the Antilles and Madagascar on account of these animals, any more than we need to postulate the existence of a former Pacific land-connection between Asia and America because the camels of the former continent are related to the llamas of the latter. And when we further reflect that Madagascar preserves a mouse nearly related to a New World type, and snakes belonging to a typical American group, we at once note how the principle of seeking to prove the former wide distribution of a race of animals and its modern limitation by geological and biological changes forms the best clue to many of the difficulties of this science. It is a clue, moreover, which is at once originated and supported by the fossil histories of the animals whose distribution is the subject of remark.

A third case which has excited the attention of students of distribution is that concerning the past history of the giant tortoises found in the Mascarene and Galapagos Islands—the former belonging to the Madagascar group, and the latter being situated 600 miles from the South American coast. Of these tortoises, as Dr. Günther has shown us, three chief groups exist. One of these inhabits the Galapagos, a second occurs on the coral island of Aldabra to the north of Madagascar, and a third, which has become extinct, inhabited the Mascarene group of islands. But our difficulties are lessened in this case—which demands the explanation of the existence of apparently similar forms in widely-removed areas—by the knowledge that these tortoises, though apparently related, in reality belong to distinct types, and that, therefore, the necessity for presuming a connection between their distribution thus disappears. The Galapagos tortoises may be presumed to have come from the American continent; and as these animals can survive long exposure to sea, and are tenacious of

life, their own conveyance or that of their eggs, on driftwood for example, is a hypothesis involving no great demands upon a scientific imagination. The Mascarene tortoises may have similarly been conveyed from Africa; and there is no greater difficulty, therefore, in accounting for the detached existence of these great reptiles, than in explaining how their more diminutive kith and kin, belonging, like the giant tortoises, to different groups, have acquired such an extensive range over the earth's surface. Indeed, the case of the tortoises may serve to remind us of that of *Bassaris*, an animal formerly regarded as a kind of weasel or civet, but shown conclusively by Professor Flower to belong to the racoons of the New World. *Bassaris*, however, inhabits California, Texas, and Upper Mexico, and when it was regarded as a "civet" (*Viverride*), an anomaly at once arose, since all known "civets" inhabit the Old World. But when the supposed "civet" was proved to be a member of the racoon group, all the difficulties of the case vanished; inasmuch as, being one of the *Procyonide* or racoons, it fell naturally into its habitat, since all the members of this family are limited in their distribution to the New World. An error in classification may thus generate anomalies in distribution which further research proves to have no real existence.

These illustrations of the manner in which the difficulties of distribution are resolved may serve to show besides the wide demands which this science makes upon well-nigh every department of natural science. The issues of distribution, in fact, involve an acquaintance with the entire range of not merely biological study but of geological investigation as well; whilst the deductions of distributional science, more perhaps than those of any other department of biology, open up before us the widest possible vista of human knowledge, and link together the varied interests of workers in every field of natural-science study. Nor is it in the grander aspects of this science that its far-reaching extent is alone to be seen. Even the apparently trivial details that constitute the story of the life existing on a barren and desolate islet may play an important part in the solution of questions dealing with the nature of life in its highest grades. And thus availing itself of knowledge from every source, this department of biology, more forcibly perhaps, as a whole, than any other branch of life-science, demonstrates how the true history of the existing universe is a history of variation and change—a chronicle, whereof the materials for each fresh chapter are derived from the lessons and the teachings of both the remote and the recent past.

ANDREW WILSON.

AN AUTHOR AT HOME.

IN an old-fashioned wooden chair, such as one occasionally finds in the parlour of a village inn, or country house where the modern upholsterer has not been permitted to substitute his gimcracks for the substantial chattels of our ancestors—in the centre of a spacious apartment, half drawing-room, half library, surrounded by a heterogeneous collection of ormolu, rare old cabinets, modern paintings, and white-and-gold chairs, that look as if they belonged to some imperial residence—is seated as fine a specimen of an Englishman as one may expect to find in this fast and degenerate age. He is tall and proportionately stout. In the spring of his life he must have had the figure of an Apollo. Even now, although he is fast approaching “the sere and yellow leaf,” his appearance is noble and imposing. His head shows so great an amount of brain capacity that a practical anatomist, judging from its form and dome-like prominence, would be satisfied that the owner (although his name and fame might be unknown to him) was endowed with extraordinary mental powers. Add to this imperfect description a pleasant face fringed with a venerable beard, and you have the portrait of a man whom to know is to love.

As the door of his strange apartment is opened and a call announced, this fine old English gentleman lays down his pen, pushes aside an enormous pile of papers, rises with court dignity, and, assuming a sweet smile that would set at ease the most nervous Miss that ever ate bread-and-butter, points to the softest chair he possesses, resumes his own hard seat, and patiently listens to his visitor's tale, be it of business, pleasure, or woe.

Who is this mild and benevolent old gentleman? Is he an Evangelical bishop, an Exeter Hall orator, or the President of the Society for the Prevention of Cruelty to Animals? No; he is—can see in my mind's eye the incredulous smile of the reader—Charles Reade, Novelist and Dramatist! Charles Reade exclaims one who has felt his lash. A fine man?—An ogre? Pleasant-looking?—Yes, as the Pantomime Blue-beard! Sweet smiles?—Malicious grins! All hope abandon, ye who enter his

lair ! Surrounded by works of art?—Blunderbusses, cutlasses, and pistols ! Give you a soft seat?—A keg of gunpowder ! Listen to your tales of woe?—Blow you to smithereens if you don't swear he is the greatest genius the world ever produced, compared with whom Homer and Shakespeare were intellectual pigmies—presumptuous gnatbrains !

Rail away, my little libellous anonymuncule. To you and creatures of your species he always will appear an ogre. He is made of different stuff from poor Keats, and the many gentle spirits whose genius has been nipped in the bud by "penny-a-liners and twopence-a-liars." The venom from your fangs will never kill Charles Reade. Through a long and active life he has been blessed with physical as well as mental vigour ; and although the efforts of his detractors have occasionally set up his bile a bit, he is none the worse for their attacks, and he has the satisfaction of knowing that his assailants have always come off second-best.

In this sketch, however, I do not intend to deal with his quarrels, his treatment of literary pirates, or his actions for libel. The scathing and humorous letters relating to the most unjustifiable attacks made upon this eminent writer will shortly be published in a collected form ; therefore it would be out of place here for me to do more than refer to those cases, as the public will soon have an opportunity of reading the original correspondence. My object is to give both the admirers and detractors of Charles Reade a glimpse of his private character, and to do the best I can to remove some of the erroneous but deep-rooted impressions which his pugnacity has created. Before I enumerate his virtues—and they are many—let us take a peep into his *sanctum sanctorum*. There, arranged upon strong deal shelves, are rows of guard-books, containing extracts from English, American, and French journals. These *excerpta miscellanea* are the collection of many years—nothing of importance has escaped the eye of this literary Argus. The newspaper cuttings are not pasted in the books in the usual careless manner, but properly classified under different headings. One set of books devoted to reports of curious police cases, under the heading of *Curialia*, or man as revealed in courts of law. Another filled with paragraphs about women, and labelled *Femina Vera*. Some volumes headed *Humores Diei*, or the humours of the day. Several ponderous tomes labelled *Nigri Loci*, containing reports of dark deeds perpetrated in prisons, lunatic asylums, workhouses, and orphan homes. In these volumes are to be found many heart-breaking stories of wretched prisoners done to death in county gaols. The crimes of men "drest in a little brief authority." Reports of sane

people shut up for years in private asylums. Conspiracies in which the chief actors were official tyrants and wicked relatives. Husbands who have consigned wives to lifelong captivity. Wives who have connived with authority to get rid of troublesome husbands, not because they were mad, but because they knew too much for their guilty partners. Heirs and heiresses shut up to make room for those who thought they had a better right to their property; and accounts of villanous deeds practised upon poor creatures whose minds were really deranged; how their bones were broken and their lives beaten out of them by ruffianly keepers. In this collection are the confessions of escaped nuns, revolting stories of immorality in religious institutions, and many accounts of cruelties practised upon defenceless children in so-called Orphan Homes. On another shelf are books containing reports of trade outrages and strikes, headed "The Dirty Oligarchy." Several volumes of mining reports, details of colliery explosions, outrages at sea, and any quantity of official blue-books! On the floor of the library are rows of giant folios, containing thousands of woodcuts, labelled *Pictura Theatri* and *Pictura Novella*. A number of yearly volumes of *Lloyd's Weekly Newspaper*, *The Graphic*, *The Police News*, English and American, all carefully indexed under Mr. Reade's favourite headings, and the most striking paragraphs marked with red or blue pencil. Every volume is indexed and classified, and in addition to the indices pasted in each folio, there are three quarto vellum-covered volumes, containing copies of the Floriligeal Indices, so that when the author wishes to find a subject he is not obliged to drag about the heavy annual volumes or the giant folios; he can find what he requires in the portable quarto, or Index ad Indices. In addition to this large collection of facts, there are about four hundred volumes of "La Bibliothèque Dramatique"—containing not fewer than four thousand French plays—and a few standard works of reference. As Mr. Reade once remarked to a friend, "This is a library of note-books." In a small room adjoining the library are kept the MSS., music, and sketches of scenes of the author's dramas. When Mr. Reade writes a play, he does his work in a most systematic manner. His original MS. is handed to his secretary, who makes a careful copy. This is revised by the author, and a fresh copy is made, with instructions for prompter and stage manager. Then the author has an interview with a first-class artist, and a set of sketches are made. These drawings are sent to the wood engraver or lithographer, for large posters or window-cards. Appropriate music is written by a competent musician, and several complete sets of the score are arranged. If the play is

not printed, three or four prompt copies are made by the secretary, and the actors' parts are all written in a legible hand. When the piece is accepted, everything is in readiness as far as the author is concerned. Duplicates of MSS., band parts, models, and sketches of scenes are always kept in reserve, so that the piece can be played in several places at the same time. A few moments in Mr. Reade's sanctum are sufficient to give one an idea of his mind and system of working. He writes fiction, but he goes to one great inexhaustible fountain for his plots and characters. When he wants a subject for a novel or a play, he draws upon human nature. In the curious collection contained in those clumsy-looking guard books he can find facts stranger than any fiction that was ever conceived by the mind of man. His models are not wild creations of the imagination, but real men and women, who have lived, acted, and spoken as he has represented them in his powerfully written works. Take his "Never too Late to Mend" as an example. Fastidious critics have objected to the prison scenes, and have accused Mr. Reade of gross exaggeration; but the truth is, that worse crimes than the author was capable of conceiving have been committed in those places where the light of justice rarely if ever penetrates. The horrors of the dark cell and the cruelty of that modern wheel of Sisyphus—the crank—are no ideal creations. All that Mr. Reade so powerfully and graphically describes in "Never too Late to Mend" he tried himself. He literally put himself in the convict's place. He did his turn on the treadmill, he turned the crank, and submitted to incarceration in the dark cell, where the blackness was so dense that it appeared tangible, and where, the author said, "he would have become a hopeless lunatic if he had been left one tenth part of the time allotted to prisoners who have been found guilty of the awful crime of speaking a word to a fellow captive."

"Hard Cash," too, is a story founded on substantial facts. The author has opened the gates of Bedlam to sane men when every other resource has failed. "Put Yourself in his Place" is another matter-of-fact romance. The amount of labour the writing of that work entailed was enormous. The author visited the seat of the trades' disputes, and collected a heap of reliable data before he wrote a page of his book. The outrages therein described actually occurred. Such works as I have named cannot be too highly appreciated, nor their author too highly eulogised. They were written more in the interests of suffering humanity than with the idea of ultimate profit. Only genius can gather a pile of dry bones and impart to them such life as Charles Reade infuses into his every-day commonplace realities.

Those who wish to form a correct estimate of this distinguished writer's love of fair play and justice, and of his abhorrence of tyranny and humbug, ought to refer to his literary labours. His spirit shines through his works. His noble characters, Mr. Eden, Lord Ipsden, Henry Little, etc., etc., are the reflections of his own nature. Happily, Charles Reade is not misunderstood by all his readers. It is that section of the public who do not search below the surface, or trouble to understand an author's mind, who fancy that he is a sort of literary ogre. The skimmers of literature fall into grievous errors and form the most absurd notions of a writer's character. I do not deny the fact that many teachers of morality fail to practise all they set down for others to follow, for history tells us that some of the purest writers have led disreputable lives; I admit that it is not always possible to judge an author by his works: but Mr. Reade is true to his precepts. His whole life has been spent in fighting against tyranny and oppression. His protection is not limited to the human race, but extends to the whole of the animal kingdom. He is opposed to vivisection, and refuses to recognise the right of man, even in the interests of science, to torture living creatures, be they ever so low in the classification.

About a year ago I kept a number of frogs, toads, and newts in my garden, not for anatomical or physiological purposes, but merely for the gratification of watching their habits and their mode of feeding and development. One day Mr. Reade called, and I asked him to look at a couple of curiously speckled Batrachians that had been brought from the garden in a perforated tin box. "Surely," said my visitor, "you are not going to keep those poor frogs in that dark box? Let them out. It is nothing short of cruelty to shut them up in that way instead of letting them enjoy their native ditch or pond." I assured the champion of *les grenouilles* that the little amphibians were well looked after, and had, at the bottom of the garden, a miniature pond, the surface of which was covered with duckweed to imitate their original home; but Mr. Reade looked serious, and shook his head without uttering a word. I am afraid that he was not convinced of my desire to make the froggies comfortable, for when he paid me a visit a little later, and heard I was in the garden amusing myself with my miniature saurians and batrachians, he exclaimed to my wife, "I hope he isn't torturing those poor frogs!"

Hares and rabbits are his especial favourites. A few months ago he had a tame hare of which he was very fond. The animal used to skip about the lawn in front of his house in Uxbridge Road, and many an hour has the eminent novelist spent in watching the gambols of

his pet. There was a workman who had been employed by Mr. Reade who was not satisfied with a fair day's wage for a fair day's work. This discontented British workman wanted a present in addition to his due. His employer did not care to be imposed upon, and refused what was undoubtedly an unjust demand. That evening the wicket was purposely left open by the ruffian, and bunny skipped away. I shall never forget her master's grief when he discovered his loss. He said to me, in a quivering voice, "The rascal did it to wound me." It is more than probable that the man did not know how sharp a wound he was inflicting, for such coarse minds are incapable of appreciating the delicate sensibilities of a refined and sympathetic nature.

One very important member of Mr. Reade's household is a little Skye terrier, who must feel a proud dog if he is capable of understanding the value his master sets upon him. The last time he was lost, a large sum was paid for his recovery—I won't say how much, for fear of offering a temptation to dog-stealers. When I expressed my astonishment at the large reward, Mr. Reade exclaimed, "I would pay ten times the amount rather than lose him altogether." He has at the present time a number of pretty rabbits running about the lawn. Sometimes they are permitted to visit the drawing-room, where they skip about and run over the feet of their kind master as he sits in his country-made chair writing his powerful pictures of life, or penning lines of comfort to a wounded spirit, or sending substantial assistance to the needy. It must not be supposed that when Mr. Reade is ruffled and hits his opponent hard, he is relentless. He never strikes a man when he is down. He can be bitter, and at times a little too severe; but one of the most charming traits in his character is his readiness to admit an error or forgive an enemy. A few years ago he was attacked by two persons who belonged to the literary profession. Mr. Reade's pugnacity asserted itself, and he wrote some scathing letters in reply. A regular paper war was the result, which, while it lasted, was very painful to all concerned. Mr. Reade had right as well as might on his side. He silenced his opponents, and received the congratulations of the majority of the leading men of his profession. It was clearly a case of trade malice; and English authors owe Mr. Reade a debt of gratitude for his championship of their rights and his plucky resentment of a skilfully planned attempt to damage his reputation as an original writer. Some time after the quarrel—and a terrible row it was—his principal opponent died. The wife of that gentleman was not left in affluent circumstances. She was a lady of considerable

literary attainments, but for some unknown cause was anything but successful. While she was bravely struggling against poverty, a stranger paid a visit to the village where she resided, and left in her temporary absence a parcel containing a handsome sum of money. The lady had some difficulty in discovering her benefactor; but when she did find out—when she learnt by accident that the man she had tried to injure had heaped coals of fire upon her head—her feelings can only be understood by those who have had similar experiences.

As Mr. Reade has made a great stir about what he calls the dark places of the land, it may interest his admirers to learn that no appeal, either on behalf of, or direct from, a prisoner whose treatment in gaol has been contrary to what the law demands, has ever been made to him in vain. Space will not allow me to attempt the details of the many cases he has investigated, nor the large number of persons he has relieved; but I will give a brief description of the last case of official tyranny that came under his notice, and what he did for the poor victim. A man, whose name I am not at liberty to publish, for reasons that will be well understood, was discharged a short time ago from one of her Majesty's prisons. He had been incarcerated for nine months. His offence was embezzlement of a small sum of money. He had held a first-rate position, and one day he was tempted to pay a pressing creditor with some of his employers' money. As is frequently the case, he intended to refund the cash at the earliest opportunity; but, like many more who have stifled the voice of conscience with the same delusive hope, he never succeeded in putting back the amount abstracted.

For two years he managed to keep the deficiency from the notice of his employers. At length, when concealment was no longer possible, he absconded, and began life afresh in another name. He was a steady man, and attended to his business; therefore he rapidly advanced in his new vocation. One day, when the mistake he had made six years previously was far from his thoughts, he was "wanted." A detective had heard of his whereabouts, and ferreted him out. He was taken to the town where the offence was committed, and, although [the prosecutors pleaded for him, he was sentenced to nine months' imprisonment with hard labour.

The punishment itself was, no doubt, horrible enough to a man who had led an active life, and it is hard to conceive how any person with a cultivated mind can exist in vile servitude; but it is, nevertheless, a fact that many *do* survive their degradation. This man had some one to live for, and he made up his mind to do his best,

even in a prison. He succeeded in gaining the esteem of the governor and the warders. There were, however, in the gaol where he was confined two tyrants who were entrusted with the greatest share of power—the doctor and the chaplain. The former was a brutal bully; the latter, a wretch who practised tyranny as a fine art under the cloak of religion. The chaplain preached abusive sermons, told his unhappy hearers they were “the scum of the earth,” and if they wanted spiritual consolation he invariably advised them not to “humbug” him, or they would be *marked men*. For bread he gave them a stone. The doctor, whose power was absolute, neglected sick prisoners until they reached the threshold of death. When it was too late, he sent them to the infirmary, prescribed for them, and told them they could have whatever they fancied. Men who applied for medicine were told that they were shamming. It was not until the wretched invalids fell off the treadmill or were found lying unconscious on the stone flags of their cells by the warders, that this brute would admit they were ill; and even then he used to say, “There’s not much the matter with *you*,” or “You’re trying it on again.” The man whose case came under Mr. Reade’s notice stuck to his work, and made no complaints for eight months. Just four weeks before the expiration of his sentence he fell sick. The doctor was sent for, and the bully made the usual remark, “You’re shamming.” A second time the surgeon was called, with the same result. The chief warder was not so hard as the man of science; he gave the poor fellow an extra blanket, and tried to cheer him up a bit. A day or two later the man could hardly crawl out of his cell, and the warder told the surgeon that he *must* do something for him; he couldn’t eat his food, and no one except the doctor had the power to alter the diet. At last an order for the infirmary was obtained, and the change from a damp stone-paved cell to a warm room with a wooden floor soon improved his condition. But before he had properly recovered the doctor told him that there was nothing at all the matter with him, and ordered him to be taken back to his cell. The next day the man had to be led from the exercise yard to his wretched habitation by a warder. He was seriously ill, and the chief officer sent for the surgeon, although the sick man begged him not to trouble the bully. When the cruel doctor arrived, he abused his victim for about ten minutes, and threatened to send him to the treadmill if he dared to complain again. The prisoner made a desperate effort to bear up for the rest of his time. He succeeded; but when he was discharged, he was only a shadow of his former self. The clothes sent for him

hung about his body like bags. The strain at the last had been too much for him. He managed to reach home, a perfect wreck. A dangerous illness ensued, and for a long time his life hung by a thread. When he was able to read, a friend lent him a copy of "Never too Late to Mend." He was wonderfully impressed with the book. He declared to his wife that he felt certain the author was in earnest when he wrote that story, and that he must know a deal about the tyranny of prison officials. "He might put me in the way of getting some redress from the Government for the inhuman treatment I have received." He wrote to Charles Reade, explained his condition, and anxiously awaited the result. The next morning's post brought him a brief reply. "Call upon me to-morrow, and I will have a talk with you," wrote the philanthropist. The poor fellow was too great an invalid to bear the journey, so his wife went instead. A short time ago I had an interview with that amiable lady, when she told me that she should remember to her dying day her first visit to Charles Reade. "I felt at home the moment I entered his house. He was so different to what I expected to find him. He asked me to have some tea, and treated me more like a daughter than a stranger. I was suffering from neuralgia, and he pressed me to accept a box of ointment that he hoped would give me relief. He said he must condemn my husband's fault, 'but,' he continued, 'the punishment has exceeded the offence. As he can't come to me, I will go to him. Tell him that I am not a very formidable individual; but as he is so ill, I will send a telegram to prepare him for my visit.'" As the lady left the house, her emotion choked her utterance. At the door her newly found friend slipped some gold into her hand, and told her to get her husband whatever he needed.

Two days later Mr. Reade called upon the unfortunate couple. They resided at the East-end of London, in a decent house; their benefactor has since told me that he found everything neat and clean. They had paid their way at the expense of their health. All they had possessed of any value had long since gone to the pawnshop. For some weeks they had barely existed. The wife was a single-hearted woman who from the commencement of their trouble had stood by the side of her beloved and defied the world and its opinions. For nine weary months she had borne the taunts and reproaches of her relatives and so-called friends—but her love increased in proportion to the bitterness of her husband's calumniators: perhaps the woman suffered more than the man, for he is protected from society, while she had to listen to the attacks

made on the man whom she loved, without the power to resent them. Their story did not fail to excite the compassion of one whose whole life had been devoted to deeds of mercy. The visit of the eminent author was too much for the man's shattered nerves, and it was some time before he could articulate. After a while, when the victim of prison tyranny had gained confidence—for who could long remain silent and uncommunicative in the presence of the gentle-hearted Charles Reade?—he gave a few particulars of the place where he had been tortured. What pleased his distinguished visitor most was the fairness of his report. He did not say that all the officials of the prison in question were tyrants; they were not *all* bad: indeed, several of the warders were men who, in spite of their training and the example of granite-hearted comrades, had still some pity for suffering humanity. "But," said Mr. Reade's *protégé*, "neither the warders nor the governors have any control over the actions of an unprincipled surgeon. In a gaol the doctor's power is absolute, and, if it amuses him to do a man to death, there is no one within the walls who cares to oppose him."

The good Samaritan, instead of preaching a moral lesson, or commenting on the enormity of his offence, began to ask practical questions. "You must have change of air and scene. The strain upon your mind has been too much for you. You will get better if you will take my advice. Despair is the soul's worst enemy, and, if I have come between you and it, I thank God for it. My life, in a general way, is now useless." Thus the philanthropist comforted the bereaved ones. A discussion about seaside places followed, and it was ultimately decided that this unfortunate man should be removed to a town on the coast, where he might possibly benefit by the tonic influence of sea air. A few hours after the interview, the now happy couple received a cheque for sufficient to redeem some of their clothing and to pay all preliminary expenses. This was followed by a letter to the lady, whose permission to publish the contents I have succeeded in obtaining.

DEAR MADAM,—I know enough of your sex to be aware that you will be staggered at the idea of bundling down to the seaside without certain solemn preparations and waste of time.

Moreover, feminine instinct will say, "First make a new dress and then go," and this is the usual order of events wherever women are concerned.

But here it would be objectionable on many accounts. I will make you a proposal.

If you will write to me from your new address next Tuesday evening, I will beg our acceptance of a piece of dark blue serge which will make an excellent seaside dress for yourself and daughter.

Cutting and making this will help to relieve the weariness of being in a strange place. Don't waste time. Go with a good heart; and don't doubt that your husband will get better; and that you will yet enjoy bright days. All the brighter for this dark cloud.

Yours sincerely,
CHARLES READE.

During their sojourn on the coast their benefactor supplied them with plenty of money, which enabled the sick man to have every comfort. After they had been away a few days Mr. Reade wrote:—

MY DEAR SIR,—All medicine is useless, and worse than useless, in your case.

It can only be attacked by invigorating and soothing influences.

1. Moderate food but full of nourishment.
2. Fine air.
3. Mental comfort.

If you could find what the Church in our Communion Service invokes so beautifully, "The peace of God which passeth all understanding," I could answer for the recovery of your bodily functions, and I believe that God intends you to come to Him for cure of soul and body. His punishments are very often not punishments such as society inflicts on those who offend it, but benevolent chastisements inflicted on us to do us eternal good.

Now tell me. Has not your tribulation opened your eyes and given you a far better sense of right and wrong than you had before you suffered? If that is so, be assured that, whatever that parson [the prison chaplain] may have told you, you are one of God's favourites at this moment. "Whom the Lord loveth he chasteneth, and scourges every son whom he receiveth." There is no clue to God's dealings more important than this. Let your mind dwell firmly on this view of your passing tribulation, and seek peace where alone it is to be found for ever.

Read the Gospels by the light of your present sorrow. We cannot understand them when the world goes well with us. Study them. I will, if you like, introduce you to a Wesleyan Minister, to whom, if you have the courage to reveal your whole story, it will go no further, and I think he will very likely put you on the road to peace. But pray understand I do not dictate this measure. I only advise it.

Yours very truly,
CHARLES READE.

There was "balm for hurt minds"—very like the letter of an Ogre! Before Mr. Reade's *protégé* was able to work he received a large sum from his benefactor. In addition to money, books and papers were supplied him, and every effort was made to direct his mind from his past miseries. In another letter amongst the collection kindly lent me by the owner, Mr. Reade writes:—

I think I have nothing more to say at present, except that you are to give me an account of your finances.

It must be remembered that these letters were written to an

entire stranger—to a man who had never even asked Mr. Reade a pecuniary favour. Here is another of his quaint yet practical notes :—

DEAR SIR,—Do not fidget. You cannot do anything considerable for anybody unless you can get well. Nor can your wife, for she mustn't leave you. Give your mind to getting well, and don't fidget. As soon as you have only £1 on hand write, and I will send you a fresh supply.

Very truly yours,

CHARLES READE.

In another he says :—

I think the money has been spun out as far as was possible consistently with my wish—which was, that you should be better in every way, please God, for confiding your sorrows to me. I am glad to have your account. It is well for those whom dire poverty has never gripped to realize these things—

The wife's wedding ring,
The child's doll and spade.

My dear lost friend ! how right she was in saying that the proper objects of benevolence are those who fall into poverty from competence and are unknown to the vulgar, howling, clamorous poor, to whom so much more attention is paid.

When I get back to town, to-morrow, I will post you £5, registered, with which please pay your landlady upon the hour you came in, unless she asks for it before. They are very sharp at seaside places, and capable of counting from 12.0 when you came in at 5.0, and that is not the law of England. In the course of Monday you will probably receive the bag of books I advised on Saturday. Now don't go pouncing upon them like a vulture and exciting yourself * * * *

The next passage, I am happy to state, has not been verified :—

Broken in health, and utterly bereaved, I draw near to the end of my time, and the chances are, I shall never write another play or story.

Mr. Reade is in harness again, and his mental powers are as vigorous as ever. He has just written two new plays and several original stories.

I hope that the particulars of this last case of official tyranny will reveal the true character of Charles Reade ; for never did the eminent writer suspect for one moment that his substantial acts of kindness would be made public. This is not an isolated case ; it is one selected from scores that have come under his notice. No doubt the fact of his being the author of " Never too Late to Mend " and " Hard Cash " has something to do with the number of applications and complaints he is constantly receiving from discharged prisoners and sane patients of lunatic asylums ; but whatever may be the cause of these numerous appeals for help and redress, let us thank God that they are not made in vain. In justice to Mr. Reade, I must not omit to state that his powers of discrimination are wonderfully

keen. He does not take up cudgels on behalf of everything and everybody. On his library shelves are piles of MSS. and letters from persons as mad as the proverbial March hare. An inmate of one of our public asylums has been petitioning Mr. Reade for years, and imploring him to investigate his case. At first it was difficult to detect the slightest signs of madness in his compositions, but when he found that the gates did not immediately open for him he covered quires of foolscap with lamentations in verse! Then his insanity was no longer doubted. Nor was his doggerel rhyme the only convincing proof of his deranged intellect. In another jeremiad he stated that he was the victim of a vile conspiracy, the two leading parties in which were his own sister and an eminent physician. This accusation was so preposterous that it could only have emanated from a diseased mind. The doctor, whose reputation was assailed, is a distinguished member of the Royal College of Physicians, and was formerly professor of the practice of medicine. If Mr. Reade interested himself about *all* the applications he receives from lunatics, he would find little time for anything else. It is a well known fact that some maniacs are able to converse for hours without exhibiting the least signs of insanity, nevertheless these individuals would be very likely to put an end to themselves or others if they were set free. Mr. Reade must first be satisfied that his data are reliable before he commences action; when he is convinced that an act of injustice has been committed, he grudges neither time nor money in support of a good cause or in defence of the oppressed. And now, having reached my limits, I must draw this brief and inadequate sketch of a good man to a close.

The details of Charles Reade's acts of charity and mercy would fill many volumes. He is a true philanthropist, and lives only to do good. Hardly a day passes without the post bringing him written blessings and prayers for his happiness from widows, orphans, and the oppressed. He dwells in amity with his kindred; he is beloved by his servants, and respected by those who have business dealings with him. That he may be long spared to continue his good work is the earnest prayer of the many who can say of Charles Reade—

For I was hungry and ye gave me meat, I was thirsty and ye gave me drink,
I was a stranger and ye took me in, naked and ye clothed me, I was sick and
ye visited me, I was in prison and ye came to me.

W. LYND.

SCIENCE NOTES.

WARMING HOUSES FROM BELOW.

SEVERAL schemes have been proposed for utilizing the internal heat of the earth ; and seeing that, as we descend, the temperature increases at the rate of about one degree Fahrenheit for every 60 feet or thereabouts (this rate varies greatly at different places), the possibility of doing so is evident enough.

The practical question is, whether it is cheaper to bring this into our houses from under our feet, or to obtain our supply by disinterring and liberating the fossil sunbeams entombed in deposits of coal. What I have read concerning these projects leads me to the conclusion that the cost of sinking deep enough to boil water, and then to convey the steam, or otherwise the directly heated air, to our houses, will cost far more than the same amount of heat from coal ; but as our thickest, best, and most accessible coal seams proceed further towards exhaustion, and coal becomes consequently much dearer, the case may be different.

The Americans generally take the lead in these very tall and extremely novel schemes, but in this particular effort they are likely to be forestalled by the Japanese, who are seriously contemplating the availability of the hot springs around Tokio as a source of heat and power, and also of using the heat obtainable by sinking. The subject was introduced at a meeting of the Seismological Society of Japan—a society which, in its own department (earthquake study), is doing good scientific service.

Mr. Milne, who read the paper, proposes to convert some of the heat into an electric current, and transmit the energy to the town.

This, in a region where the hot springs and earthquake disturbances indicate a much more rapid increase of heat than that above named, is, of course, more likely to be within practical reach. Besides this, the tapping of subterranean heat in districts liable to earthquakes will probably have some slight effect in moderating those convulsions. In the abstract of Mr. Milne's paper that I have seen nothing is said about this.

MONKEY-PIGS.

BLUMENBACH'S University lectures were very popular, especially with the medical students. The most popular of all the course was that on the loves of the frogs, which for good and sufficient reasons I will not quote. Another, on the family resemblances between men and pigs, was also a favourite, to which a crowd of students flocked from other classes when it was expected.

In this the Professor humorously described and demonstrated many curious analogies; first telling how the ancient anatomists, who were not permitted to dissect human bodies, used those of pigs as an efficient substitute; then he quoted certain cannibal authorities on another resemblance, and then classified the different varieties of pigs as Caucasian, Ethiopian, American, and Mongolian, showing that African pigs and African men were similarly black and long-jawed, thick-lipped and woolly-haired, and how the projecting jaw and thick lips of each were reduced by culture. He described the high cheek-bones of the pigs of Tartary and compared them with their human fellow-countrymen, and so on throughout, especially showing the susceptibility of pigs to the refining influence of elegant education, by contrasting the dirty habits of vulgar pigs with the scrupulous cleanliness of those that are otherwise reared, such as our prize pigs, for example. This, of course, is naturally connected with Lamarck's view of the genealogy of the human race, which he traced through the pig in the course of its ascent.

The suggestion of our relationship to these animals is revived by the discovery in the Upper Eocene strata, near Apt in France, of fragments of animals constituting a true connecting link between pigs and monkeys (*Pachysimians*, *Singe-cochon*, or *Cebocherus* as originally named by M. P. Gervais). Recent finds of these in the phosphorite of Quercy were described by M. H. Filhol at the Academy of Sciences in May. They are so truly intermediate that it is questionable whether they should be named "monkey-pigs" or "pig-monkeys."

THE EFFECTS OF STRONG WINDS ON TREES.

In a paper read at the Royal Horticultural Society, on the 23rd of May last, by Dr. Church, he described experiments he has been making during the last fifteen years upon the quantities of salt in rain water at Cirencester. He found that during autumnal gales from the south-west it contained as much as from 5 to 7 grains of salt per gallon, the ordinary quantity being but $\frac{1}{2}$ grain. He observed that in Oakley Park one side of the trees suffered, and that if dry

weather followed the gale the salt sparkled on the trees, even at a distance of thirty-five miles from the sea.

His explanation of the injury is that the salt abstracts moisture from the leaf-cells, forms a concentrated solution, and the leaf is withered by its action.

Without controverting this theory, which may be correct so far as the instances observed by Dr. Church are concerned, I may describe some observations and conclusions of my own.

I live in a suburban street which, in accordance with customary cockney magniloquence, calls itself a "Park," and in justification thereof the edges of the footpaths are planted with horse-chestnuts, forming "The Chestnut Avenue" of Stonebridge Park.

The digitate leaf of the horse-chestnut, as my readers may have observed, is divided into seven radiating leaflets, and has a long petiole or leaf-stalk fixed to the stem by a hoof-shaped attachment, showing the marks of imaginary nails of a horse-shoe when it is detached, from which the name of the tree is probably derived.

During the gale which blew so pertinaciously on the 29th of April last, I watched the writhing gyrations of these outspread fans as they were tortured by the wind, and wondered at the possibility of their remaining on their stems, the strain upon their attachments thereto being so great. A few were actually blown off, others indicated partial dislocation by drooping abnormally.

A few days later these drooping leaves were withered at their edges, as though scorched or frost-bitten. This was the case on the windward side of all the exposed trees, which, for a long time, wore quite an autumnal aspect, and gradually shed a considerable proportion of their leaves from that side. Some even now (in August) are visibly dilapidated.

Willesden is too far from the sea for the salting described by Dr. Church to occur in sufficient force to produce these effects; besides which, the above-described action is quite sufficient. Nearer to the sea both sources of withering may co-operate.

Walking round the Cornish coast I have been much struck with the doleful aspect of the trees fully exposed to the Atlantic gales. They lean over like weary, aged, broken-backed, emaciated cripples, with a leafless baldness to windward.

Until making the above observations I accepted the usual explanation of this bowing, which attributes it to the mechanical bending of the stem by the force of the wind, but now I see the true reason of the melancholy lopsidedness.

The leaves on the side of the prevailing winds being dislocated, and withered or killed, the growth on that side is more or less

suppressed, while it continues on the opposite side which is less exposed. I now remember that the wretched aspect of these vegetable victims is not such as would be due to the mere bending of their backs, but to a horizontal outstretching of their branches and twigs, which, on a moonlit night, seem like the haggard pointing limbs of weird thousand-fingered Macbeth witches.

THE EXPANSION OF SOLIDIFYING METALS.

IN the older treatises on heat, and even in some of modern date, the expansion of water on freezing is described as "anomalous" or exceptional. In one of my Notes in April 1881, I described the supposed paradox of solid iron floating on molten iron, and the explanation afforded by Messrs. Roberts and Wrightson, who found that the specific gravity of melted iron is greater than that of solid iron heated to near the melting-point, or, otherwise stated, that iron expands on solidifying as water does. According to some later experiments of Herren Nies and Winkelmann, this is also the case with tin, zinc, bismuth, antimony, and copper; and they are disposed to include lead and cadmium, and all the rest of the metals.

It appears to me that a great deal of unnecessary refinement and elaboration has been devoted to these researches, so far as the elucidation of the mere fact of expansion is concerned, seeing that a frank acceptance of the teachings of working ironfounders would have settled the question long ago. They have always been convinced that solid iron is lighter than melted iron, from the simple fact that it floats in the liquid; and there is no experiment, however ostentatiously scientific, that is more conclusive than this. Other founders can tell of other metals that similarly float; and the best way of settling the question is to visit such foundries, take a lump sample of the metal in question, cut off suitable pieces from this, and melt the rest; then cast the pieces in the melting-pot and watch the result. They will all sink to the bottom when cold, as the iron does, and those which, like iron, expand just at their solidifying point, will rise, as iron does, to the surface, before they melt in the surrounding liquid, provided this is not over-heated.

The obstinate ignoring, and in some cases the denial, of these familiar facts of the founder's experience, shows that learning does not always produce wisdom, and that a man may have much science with but little philosophy. The true philosopher would have gone to the foundry and repeated the founder's observations before attributing his assertions to popular ignorance.

Some of the facts of expansion at the moment of solidification.

and the subsequent contraction on cooling, recently put forth as revelations to the scientific world, have been known for many generations to workmen, and have been handed down from master to apprentice as ordinary matters of course ; in some cases, with quantitative precision.

As an example I may name the "*contraction rule*" of the iron-founder, which is a measure having its feet, inches, and fractions lengthened by $\frac{1}{16}$. The wooden "*pattern*" which he presses into the sand to form the mould in which the metal is to be cast, is measured by this, the result being that the casting when cooled is of the dimensions required, measured in true feet, inches, and fractions. When a temporary wooden pattern is used for the casting of a permanent iron one, the exaggeration of the contraction rule is doubled by adding $\frac{1}{8}$, or $\frac{1}{4}$ -inch to the foot. This allows for the two contractions, first of the intended pattern, and second, of the castings therefrom.

The expansion of *some* metals at the moment of solidification is well understood by the workman, far better than by the *savant*. Tubal-Cain and all his successors have availed themselves of this, and prize it highly, seeing that it enables them to obtain castings with a degree of sharpness otherwise impossible.

Molten metal is not limpid like water, will not filter through cracks and crevices and fill up sharp angular corners and edges by its direct flow ; but when confined in a firmly braced and well-prepared sand-mould that cannot expand generally, but is sufficiently porous to allow the escape of the air pent up in such angles and corners, the sudden expansive outthrust due to crystallisation jerks the metal into a complete image of every detail of the matrix.

Founders also know that different metals and alloys vary greatly in this respect, and would probably question the broad generalisation of Herren Nies and Winkelmann, as sharp castings are unattainable from some metals.

One of the most crystalline of the metals is antimony—I may say the most crystalline, if size of crystals is to be included in the comparison. Who discovered the "*anomalous*" expansion of antimony? Not the gentlemen of the universities, but the common fellows of the workshop, who found that alloys of lead and tin, either alone or hardened by the addition of copper, were unfit for casting small type, but that, by the addition of antimony, not only was the required hardness obtained, but also a degree of instantaneous expansion that, with the help of a suitable jerk by the hand of the founder, completely fills the deep and narrow mould, and produces the beautiful castings used in all our printing-offices.

nail itself becomes able to lift another nail. Thus, at the bottom of the iron tray there were two magnetised spots or poles, where it rested on the poles of the magnet.

Under these conditions, the deposit of metallic copper on the bottom of the tray, instead of being uniform, displayed an outline picture of the ends of the magnet below. It was, in fact, a rough copperplate engraving, as the deposit was mysteriously suppressed just at the outline of the poles, while tolerably uniform all around and also within the outlines, *i.e.* directly over the poles.

With an electro-magnet the inside deposit was fairly uniform, but outside the outline the copper was deposited in irregular ridges running at right angles to the lines of magnetic force.

I repeated this experiment last year, using the large electro-magnet of the Royal Polytechnic Institution, the poles of which present a face of $3\frac{1}{2}$ inches square, and are $9\frac{1}{2}$ inches distant from centre to centre. In my experiment the deposit was uniform within the square area of $3\frac{1}{2}$ inches over the poles of the magnet, but outside it formed a series of ridges and furrows surrounding each pole, just as iron filings do when sifted on to a card placed over a magnet like the iron tray.

So far my results correspond with those of Prof. Remsen; but I observed something in addition which is very curious, and explains some of these variations of deposition, but is a puzzle in itself.

Very slight movements soon became visible in the liquid, and as the experiment proceeded they became more and more distinct and definite—were then displayed by small floating crystals of sulphate of iron that were gradually formed as the copper deposited.

A distinct rotatory current was thus traced circulating around the inside space over each pole, and another current circulating in the opposite direction outside. Over the north pole the outside current moved in the direction of the hands of a watch, and inside in the opposite or retrograde direction. Over the south pole these were reversed, the inner current then taking the direct motion. All these four currents increased in rapidity until, at the end of half an hour, the two inner circles were completed in about five seconds.

It will be understood from this that the boundary at the poles was between two opposing currents; and here a number of the floating crystals collected, forming a sort of crust delineating the shape of the ends of the magnet. Immediately under these was the furrow or line of non-deposition of copper described by Prof. Remsen. On moving these crystals a little aside they rushed back to their old place.

The copper deposit which I obtained was of a spongy, incoherent

character, with no adhesion to the iron. Being anxious to keep a permanent record of the experiment in the form of a firm deposit, I repeated the experiment with a weaker solution of sulphate of copper. I still obtained a flocculent deposit showing the lines of force and the outline depression, but not so well marked as before. No steady definite currents were now visible, but the solution was too weak to deposit crystals of sulphate of iron. This and the behaviour of the solution in the previous experiment, where the currents were developed simultaneously with the appearance of the crystals of iron salt, led me to the inference that these movements were due to the magnetic and diamagnetic properties which Faraday proved to belong to such salts.

Repetition of the experiment with solutions of intermediate strength confirmed this, for then I discovered that a separation of the mixed solutions of sulphate of copper and sulphate of iron occurred, and they became so arranged that over the outline of the poles was a liquid wall of pale green solution of iron, while on either side—*i.e.* both inside and outside of the poles—was blue sulphate of copper. This explained the furrow in the copper deposit, as it is evident that copper could not be deposited from the pale solution of sulphate of iron thus standing over the boundary or outline of the poles of the magnet. It also suggested another series of very interesting investigations which the closing of the Institution and the loss of the big magnet prevented me from prosecuting. Faraday found that certain metals and their compounds, when in the form of oblong bars, or contained in oblong tubes, and suspended between the poles of a very powerful electro-magnet, arranged themselves either "axially" or "equatorially" to the poles—*i.e.* they either turned with their ends towards the poles, or placed themselves across. He classed them accordingly as *magnetic* and *diamagnetic*.

As sulphate of copper is diamagnetic, and the solution of iron formed in the course of the experiment is magnetic, a conflict between these must occur, and this may be the source of the curious currents I observed.

I tried a solution of bismuth (the most diamagnetic of all the metals) alone. No motion was visible, although it contained suspended particles of the sub-nitrate that would have displayed any. The same with a solution containing precipitated phosphorus. These negative results indicate the requirement of mixed magnetic and diamagnetic liquids, the further proceedings of which I hope to examine when another opportunity is afforded.

TABLE TALK.

THE BECKFORD COLLECTION.

WHATEVER opinion may be held as to the distribution of the Sunderland Library, the dispersal of the Beckford Collection cannot be regarded as a matter very seriously concerning literature. The largest prices which were realised were paid for bindings, not for books, and the sale was in some respects less of a library than of a collection of objects of vertu. I no more dream of despising the taste for individual copies which have passed through special and eminent hands, or belonged to famous collectors, than that for scarce or handsome editions. The two things, however, do not stand quite on the same footing. An edition may cast light upon a text ; a copy can scarcely do so unless it is annotated by the author or some writer likely to possess especial information, in which case it is probably unique, and should be in some great national library. A masterpiece of the binding of Padeloup or Le Gascon is as much a work of art as a cup carved by Benvenuto Cellini. As such it is a desirable object. When, however, as is occasionally the case, the binding is upon a work which without it would be thrown away as waste paper, the right of the copy to rank as a desirable *book* is open to dispute. I am so far short of being a true bibliophile, that I would rather have accumulated the fine collection of editions known as the Sunderland Library than the marvellous volumes which formed a portion of the princely surroundings of Beckford. The fact, however, is not to be ignored that in the Hamilton Collection, as the library first commenced at Fonthill is now called, are some priceless editions and other works of surpassing interest.

ENGLISH BOOKBINDING.

IN sight of the demand for handsome bindings which has lately been developed, and the almost fabulous prices paid for well-bound books, it is singular that the occupation of bookbinding is still regarded in England as mechanical, and that no artist of eminence makes his appearance in our midst. I have no wish to disparage the *productions* of the best English binders, many of

which are highly meritorious. Still, beside the works of the marvellous artificers found by the famous Marquis d'Aguisy, all modern accomplishment, even that of Trautz-Bauzonnet in France, seems wanting in delicacy. The secret of his marvellous gold tracing died with Le Gascon, and cannot, it seems, be recovered. In the absence, however, of that special taste and ability which, according to M. Feydeau, "discourage the most delicate and skilful hands," our bookbinders might turn their attention to new materials. I have seen, for instance, some bindings in Japanese fabrics the effect of which is singularly novel and pleasing. So emphatically a work of individual art is a binding, that we must wait in hope for the great artist to disclose himself. In that development of art, however, which makes the latter half of this century a period of second renaissance, bookbinding can scarcely be said to have shared.

CLOTH VERSUS LEATHER.

THE previous remarks are intended to apply to books bound in morocco, calf, vellum, &c., and not to those in cloth cases. So beautiful and artistic are sometimes the coverings supplied to new books, and the fancy papers employed as bindings, that one is compelled to use the volume carefully, knowing that when the case is worn out it will be difficult, if not impossible, to supply a binding equally satisfactory. Some of the works issued during late years by our best publishing houses are perfect in taste.

THE FOREIGNER IN LONDON.

WITH the extension of a little indulgence by the sour-visaged and sanctimonious who insist upon making Sunday a day of penance, London might easily take the position hitherto held by Paris as the centre of civilised life. Many reasons, including the absence of a strong and settled government, combine to drive from Paris the pleasure-seeking, art-loving classes who form a chief support of a holy-day capital. During the past season London has stolen a march upon her rival. Scarcely a respect is there in which the advantage is not on the side of London. In theatrical entertainments London has once more welcomed the chief Parisian company, which has appeared in a large portion of its modern repertory. It has, in addition, seen two of the most conspicuous of Italian artists, Signor Rossi and Signora Ristori, acting in English: a remarkable proof of the importance attached to the verdict of London. German opera given under the best conditions has combated the supremacy long enjoyed by Italian opera. The *best American* artists have come over; and we have, I am told,

narrowly escaped a visit of Parsee actors, whose advent is only deferred.

Extreme interest has been excited through the cultured world by the great sales of pictures, curiosities, and books that have taken place at our auction-rooms. In the importance of these, London during the past season has occupied the foremost place in the world. It would be easy to proceed and show how in every respect London has taken precedence of every other capital. Yet, except for Americans, London is badly situated. The majority of visitors from the south, Italians, Spaniards, and the like, reach London by way of Paris; and Bavarian and other South Germans are able to take the same route. To entertain the new visitors we have built new and splendid hotels, and for their benefit in part we have beautified our streets. One thing more we are called upon to do. We must, at least in the case of foreigners, so far modify our laws that every visitor may not be compelled so to have to stay as, if possible, to be across the Channel before Sunday. A penance upon a foreigner so severe as an English Sunday no civilised nation has imposed.

MR. WILLIAM MORRIS ON THE COLOURS OF FLOWERS.

AS an acolyte in matters of art, I listen with reverence to the utterances of those higher than myself in the service of her temple, and I am not often ready to dispute the claims of bishop and priest, self-appointed though these ordinarily are. Sometimes, however, I am compelled to listen to doctrine which I am scarcely able to understand. My very good and worthy master Mr. William Morris, whom I mention with sincere respect, startles me thus when he speaks of "bad colour" in flowers. Surely this is going a little too far. Mr. Morris's words are: "There are some flowers (inventions of men, *i.e.* florists) which are bad colour altogether, and not to be used at all. Scarlet geraniums, for instance, or the yellow calceolaria: which, indeed, are not uncommonly grown together profusely, in order, I suppose, to show that even flowers can be thoroughly ugly." Mr. Morris's objections to certain shades of red and yellow are known. Against them I have nothing to say. He will not, however, soon convert me to the notion that the bright red of the geranium, or the yellow, not unlike that of the buttercup, of the calceolaria, is a bad colour. As for the reason they are so largely used in London gardens, has Mr. Morris, I wonder, ever tried what flowers will flourish in our sooty atmosphere? I fancy it is not the colour that commends these special objects of Mr. Morris's animosity, but the fact that among flowers which last for a long period they stand foremost, if not alone, in the readiness with which they grow. As Wordsworth says to the

"kindly unassuming spirit," the small celandine, I would say to the geranium—

There's not a place,
Howsoever mean it be,
But 'tis good enough for thee.

"SCIENTIST."

THOSE who justify the use of the word "scientist" to denote a scientific man are at least out in the illustrations they advance. To assign as justifications of a disagreeable word the derivation of such words as dentist from *dens*, oculist from *oculus*, deist from *deus*, and artist from *ars*, is mere waste. As is pointed out in the journal in which the discussion originated, *scientia* should make scient, as *penitentia* supplies penitent, and *patientia* patient. I see no objection to the use of the word scient, which is exactly synonymous with the French *savant*. If this is disliked, why should we not coin the word scientiate, which is analogous with licentiate—once in common use. That Whewell advocated the use of the word scientist is true. A large percentage of those to whom the term, if once brought into general use, will have to be applied, are strongly opposed to its employment.

MR. SWINBURNE'S NEW POEMS.

FULL justice has been done in the chief organs of literary opinion to the merits of Mr. Swinburne's rendering of the story of Tristram of Lyonesse. There is little temptation, accordingly, to dwell upon or characterise the splendid contribution to the literature of Arthurian romance that Mr. Swinburne has supplied. While on the one hand, however, Mr. Swinburne has been credited with abandoning a portion of his former method which he still retains, adequate praise has not been paid to the power, marvellous in itself and wholly unlike anything he has previously shown, which is displayed in his descriptions of combat. Poets of the Swinburne order do not change as speedily and completely as is sometimes supposed. Let those who think the author of "Poems and Ballads" ashamed of "Les Noyades," compare with that poem the utterance of Tristram when pining on his death-bed for the arrival of Iseult. Those, on the contrary, who seek to know how much of virility of style Mr. Swinburne has acquired, and what power he has to use the metre affected by Dryden, should study the description, in the canto headed "The Last Pilgrimage," of the fight between Urgan the giant and Tristram. Nothing in its way finer or more poetical than this can be found in English literature.

SYLVANUS URBAN.

THE
GENTLEMAN'S MAGAZINE.

OCTOBER 1882.

DUST: A NOVEL.

BY JULIAN HAWTHORNE.

Only the actions of the Just
Smell sweet and blossom in the Dust.

CHAPTER XXI.

THE dead man's horse had disappeared, and was probably trotting back to his stable in Twickenham. But Tom Bendibow's steed, which knew its master, could be heard cropping the herbage a few rods away, at the other end of the open place. This sound, and the struggling breathing of Tom himself, were distinctly audible in the stillness of the night.

Marion, after there was no longer any doubt as to Mr. Grant's being dead, sat for several minutes motionless and silent, his head resting on her lap. Philip meanwhile was examining Tom's injuries, which proved to be a crushing blow at the base of the head, behind the right ear, and two upper ribs on the same side broken, apparently by the stamp of a horse's hoof. It seemed hardly possible that he could live long.

"Shall I lift them into the wagon?" he asked Marion. "We should lose no time in getting home."

"If you take out the seat of the wagon, they can lie at full length," she said. "I will get in with them. You must ride Mr. Bendibow's horse and lead ours."

The plan was as good as the circumstances admitted; and Philip, assisted by Marion, succeeded in lifting the two lifeless weights into the bottom of the vehicle, in which had previously been placed a kind of pillow, improvised out of Philip's coat and Marion's shawl. Marion then got in and supported Tom in such a manner that the jolting might distress him as little as possible: and finally, Philip,

having caught and mounted Tom's horse, grasped the reins of the baker's phlegmatic steed, and the party moved forward. The strange darkness, which had been at its densest at the moment of the catastrophe, now began to lighten; a star or two appeared toward the east, and gradually the heavy veil of obscurity was withdrawn in the direction of the west and south. The faces of the two victims were faintly revealed. Mr. Grant's countenance bore a serene and austere expression; but poor Tom's features were painful to contemplate—the heaviness of insensibility alternated there with the contractions of suffering. "Poor boy!" Marion murmured, more than once, but with an inward and musing tone, as if her compassion extended to something beyond his physical calamity. At other times this compassionate aspect gave place to an expression of stern severity; and this again was once or twice succeeded by a beautifully tender look, which deepened her eyes and made her lips move tremulously. Few words were exchanged between her and Philip during their sad journey, which seemed to both of them as long as a lifetime, and yet brief.

Brief or long, the journey ended at last, and in the paleness of early dawn, Philip, with the help of the astounded baker, who had been aroused for the purpose, carried Tom Bendibow and the body of Mr. Grant through the iron gate, and beneath the overspreading limbs of the cedar, and into the house where Mrs. Lockhart, horror-stricken and speechless, stood to receive them. Then the baker was sent for a physician: the dead man's body was laid on the bed in his chamber, and Philip did whatever was possible to make Bendibow comfortable in his own room. The latter had by this time begun to regain the use of his senses, and with these—though only feebly and at intervals—the power of speech.

"Did the . . . fellow who did this . . . get off?" was his first question. To which Philip replied in the affirmative.

After a pause Tom resumed: "Well, I'm done for!"

"Nothing of the sort; you will be all right in time," said Philip.

"No; I'm a dead man; and . . . I'll tell you what, I'm . . . glad of it!" He said this with all the emphasis at his command. By-and-by he added, "What about the . . . old gentleman?"

"Shot through the heart."

Several minutes passed, and Philip thought that Tom was relapsing into unconsciousness, when he suddenly exclaimed: "Do you mean to say he's dead?"

"He died instantly."

"Give me . . . some water," said Tom, with a ghastly expres-

sion ; and after he had drunk, he continued, " I tried to help ; but when I heard his voice " . . . he broke off abruptly.

" Whose voice ? Oh, you mean Marion's—Miss Lockhart."

" Very likely," said Tom. " I'd better tell you how it all came on : I shan't be of any use by the time the inquest begins. I rode over the river to meet him . . . to give the letter, you know. Took the wrong road, but he'd taken it too, so . . . we rode along together, talking, first about Perdita : then he spoke of Miss Lockhart . . . she was on his mind ; he liked her, didn't he ?"

" That's strange !" muttered Philip to himself.

" And we talked about . . . well, no matter ! Then my girths got loose and I got down to tighten 'em, and he rode on. Just as I was mounting I heard another horse coming along . . . and there seemed to be some row . . . I rode up. I heard him say, ' Hand it over, or . . . '

" The highwayman said that ?"

" Yes," replied Tom, after a long pause. " By that time I was almost on 'em. He fired ; by the flash I saw his face . . . Oh, my God !"

" You would know him again, then ?"

" I shall never see him again," replied Tom, with a certain doggedness of tone. His bearing during this conversation had been so singular, and in some respects so unaccountable, that Philip was disposed to think his mind was affected. " You had better rest," he said kindly.

" I shall rest—till Judgment Day," replied the wounded youth ; " and I shan't say much more before then. Oh, I have my wits about me . . . more now than when that shot was fired ! Just after that I heard a call somewhere down the road ; I shouted back. Then he rode at me and hit me with the butt of his pistol. Well, he's a villain ; but it's better for me to die than to hang him. I've had enough."

At this point Marion came to the door with a letter in her hand, and as Philip approached her, she said to him in a low voice : " I found this in Mr. Grant's pocket. It is addressed to Perdita Desmoines. What shall be done about it ?"

Philip took the letter from her and looked at it. It was enclosed in a sealed packet of stout paper, and the address was in Mr. Grant's handwriting. Its appearance indicated that it had been kept for some time ; the corners were dog-eared and the edges somewhat worn. Across the corner of the packet was the following indorsement :

"In case of my decease to be handed at once to the person to whom it is addressed, and on no account to be opened by any other person. J. G."

"I can't leave here at present," said Lancaster, "and 'twould not be safe to trust it to a messenger. Let it wait till this evening or to-morrow."

"What's that about Perdita?" demanded Tom from the bed; for, with the abnormal acuteness of perception that sometimes characterises the dying, he had caught her name. "A letter for her? Send for her, Miss Lockhart, please! I want to see her before I go. And she ought to be here, besides. Tell her that he's dead and I'm dying, and she'll come."

Philip questioned Marion's face with a look, and she responded by a look of assent. She had long ago divined the secret of poor Tom's love, and now the new birth in her own heart had quickened her sympathies towards all lovers. "I will write her a message and send it off immediately," she said, walking up to the bedside and touching the boy's hand softly with her own. "She will be here by the time the surgeon has dressed your wounds, and then you will be feeling better. You are not to die, sir. Madame Desmoines and I will nurse you and make you well."

"That's all right," said Tom, closing his eyes with a sigh; and, yielding to his exhaustion, he sank into a semi-somnolent state which seemed likely to last some time.

"By-the-by," said Philip, when Marion had written her message to Perdita, "there's this boy's father; I forgot about him; he must be summoned instantly. I'll send word to him post-haste."

"Do you think he will come?" she answered, glancing at him for a moment and then looking away. But before Philip could reply to so singular a query, she responded to herself, "I suppose he would. And it would be worth while to have him here. Mr. Grant was his guest last night. He might help in finding the murderer."

"After what I've seen to-night," Philip remarked, "I should hardly like to ask you where the murderer is."

"This is different," she returned. "I know nothing. I see only people that I love. Don't think of me that way, Philip."

"You know how I think of you, Marion."

"If I did not, I could not bear this."

They were in the little sitting-room down-stairs, standing by the window where they had so often stood before. Overhead was audible occasionally the soft foot-fall of Mrs. Lockhart, moving about in the room where Grant lay. The east was exquisite with the tints

of approaching sunrise, and the calm and strength of nature made the morning sweet. The earth, which had wheeled through the light and darkness, the life and death, of so many myriad years, still maintained her tireless pace no less freshly than on the first day. Could a human heart, also, turn as hopefully from the shadows of the past, and voyage onward through untravelled paths toward the source of light, or must the dust and gloom of weary years still cling to it and make its progress dreary? Love is truly life: deprived of it, body and soul alike stagnate and decline; but, gifted with its might, we breathe the air of heaven even in the chamber of death, and our faces are illuminated even in a dungeon.

It was in the air and light of this immortal morning that Marion and Philip now looked at each other, brightened thereby from within as the sunrise brightened them from without. The utterance of their hearts was visible in their eyes, and there was hardly need of words. But the love which has not avowed itself in words is incomplete.

"Will you be my wife, Marion?" said Philip.

"Have you known me long enough?" was her reply.

"I have known you all my life."

"But to have me will be more wearisome than to know me."

"Marion, I love you."

"I love you, Philip. Oh, Philip, can this be happiness that makes my heart ache so? If I did not know there was so much sorrow in the world, I could hardly live! Can Philip Lancaster belong to me, and I to him! I am afraid to have you know how much I love you. I am afraid to know myself. No! I will not be afraid. Take me, Philip! Kiss me." . . .

It was with reverence that Philip kissed her first; but then love overcame him. There was no one like her in the world. He would be a hero and a saint for her sake.

About nine o'clock in the morning, Perdita, Marquise Desmoines, drove up to the gate. She alighted and walked quickly up the path to the door. Her face was vivid, and her bearing alert and full of life. Philip met her at the entrance.

"Is Tom really dying?" was her first question.

"He seems to wish it, and the surgeon gives no encouragement. He is anxious to see you."

"Is it known who did this?"

"Nothing as yet. Tom Bendibow seemed to have something on his mind, but I think he wanders a little. He may speak more explicitly to you."

"Take me to him," said Perdita; and when they were at the door of the room she added: "I will see him alone." So Philip went away thoughtfully.

Perdita closed the door and moved up to the bedside.

Tom's face was turned towards her: it had the pallor of coming death upon it, but her propinquity seemed to check the ebbing current of vitality, and to restore the poor youth in some measure to himself.

"Good morning, Perdita," he said, with a feeble echo of cheerfulness in his tone. "I told you yesterday I'd like to die for you, and here I am at it, you see!"

"Do anything but that, Tom. I want you to live."

"It can't be done now. I don't believe even your marrying me would keep me alive now!" said Tom, though with an intonation as if the matter were open to question. "And it's just as well, you know. I had no notion till now how easy dying is. It doesn't hurt half so much as a licking at school. I rather like it."

"I wish I knew who struck you," said Perdita, with a frown in her eyes.

"Nobody shall ever know that: I've made up my mind!" said Tom gravely.

"Do you know, Tom?"

"Yes, I do know. I wanted to tell you that much, though I'll tell nothing more. And it's just as well I'm going, for I couldn't stand keeping such a secret long. Don't try to guess it, Perdita, please. Whoever he is, he's got worse than hanging already. Let's talk about other things. I found him—your father—and gave him the letter. He never read it; the night was like pitch. But we spoke about you. We've all of us made a mistake about him; he was true grit, I can tell you. Oh, here's a letter for you, that came out of his pocket! I'm glad of it, for it was an excuse for sending for you."

Perdita received the packet in her hand, but scarcely glanced at it. She leaned over the helpless figure of the last of the Bendibows, and stroked the hair on his forehead with a touch as light and soothing as the waft of a breeze. "My dear, dear Tom," she said, "I wish I could have made you happy. I am not happy myself."

"You do make me happy: and if . . . I say, Perdita" . . .

"What, dear?"

"Do you remember, when I left you yesterday, I couldn't kiss your hand, because I felt . . . I'd better not. But now, you know" . . .

"You shall kiss my lips, dear, if you care to," said Perdita, bending her lovely face near him.

"Oh . . . But not yet, Perdita; not quite yet. Because I should like that to be the last thing . . . the very last of all, you know. You go on and read your letter, and let me hold your hand; and when I am ready I'll press it, so: and then . . . will you?"

"Yes, anything you like, dear," she answered.

She broke the seal of the packet. It contained a second enclosure, also sealed. But there was also a loose fold of paper, on which was written the following:

"MY DEAR DAUGHTER: This will come to you when I am no more. It contains the explanation of the Past: why I left you; what manner of man I, your father, was. This information is comprised in letters written by myself and others twenty years ago. I have kept them by me ever since as a measure of defence against possible injury. After I am dead they will no longer serve this use, and I do not require you to peruse them. You may, if you see fit, burn them unread; but if you feel a curiosity as to your father's real fate and character, I do not forbid you to read them. Act herein according to your own inclinations and judgment, and I shall be content. But I request you in no case to act against any other person on the authority of what is contained here. What is past in our lives may be used to increase wisdom and charity, but should never be made the instrument of revenge.

"My dear daughter, I have loved you heartily all my life. I pray that God may bless you and make you noble and pure. Your father,
"CHARLES JOHN GRANTLEY."

After reading and re-reading this letter, Perdita sat for some time lost in thought. Should she open the other packet? Might it not be wiser to burn it?

Her hand had been lying in Tom's meanwhile, though she had almost forgotten it. On a sudden she felt a slight pressure; very slight, but it made her turn quickly and look at him. It was easy to read the tidings of that face; pinched, pallid, lacking in beauty and dignity; but the face of a man who loved her and who was at the point of death. She put her mouth to his and kissed him. His lips just responded and no more.

A carriage drove rapidly up to the gate and Sir Francis Bendi-bow's footman rapped loudly on the door.

CHAPTER XXII.

MRS. LOCKHART met Sir Francis at the door ; he greeted her in a voice louder than ordinary ; but harsh, as if the conventional instinct in him had overstrained itself in the effort to hold its own. An analogous conflict between the shuddering emotion within and the social artifices to disguise it, was manifest in his face, which rigidly and, as it were, violently performed the usual motions of smiling and elegantly composing itself when all the while these polite antics were betrayed and falsified by the grim reality of ghastly pallor and suspense. And there was no necessity for the baronet to maintain the customary elaboration of his fine manners. No one would have expected it of him under the present circumstances : on the contrary, it would have had a repugnant effect, even had he been actor enough to make the pretence seem genuine. But men like Sir Francis, who have trained their minor natural impulses to wear stays and turn out their toes (so to say), are liable to be thus embarrassed by the fearful summons of some real passion of the heart : they pitifully strive to clothe the giant in the pigmy's bag-wig and small-clothes, and are too much bewildered to perceive the measureless incongruity.

"Good morning, madam ; charmed to see you looking so well," were the baronet's first words to poor Mrs. Lockhart, who immediately burst into tears, partly because she thought Sir Francis had gone mad, and partly because the contrast between her feelings and his observation was so grotesque. "Is—er—all are well, I hope ?" he proceeded, while the questioning agony in his bloodless lips and staring eyes seemed to belong to another being than he who uttered the meaningless phrases.

"I only hope you may not have come too late, dear Sir Francis," she said, instinctively replying to his look instead of to his words. "Poor Mr. Grant—he was murdered outright, but your son . . ." she faltered, and resumed her tears . . .

The baronet stood at the foot of the stairs, with his hat under his arm and one knee bent—a most unexceptionable attitude. He was dressed at least as fastidiously as usual, only that, in shaving, he had accidentally cut his cheek, and the blood had trickled down and stained his else immaculate white stock. This little mishap might fancifully be regarded as symbolical of his moral state at the moment. He awaited something further from Mrs. Lockhart ; but at length, as she did not speak, he said carefully, "Grant murdered ! I cannot believe it ! He parted from me not twelve hours ago, in such capital

health and spirits." Then, after another pause, he bent forward and added in a grating whisper, as if confidentially, "The message that summoned me here mentioned the name of my son—Thomas. Pardon a father's anxiety—alluding to him at such a moment. But . . . nothing wrong . . . eh?"

"Oh, Sir Francis! the surgeon says he cannot live; but he was very brave: it was while he was trying to protect Mr. Grant that he was struck. Oh, how can any one be so wicked!"

A peculiar sound escaped from the baronet's throat, and his upper lip drew slowly back so as to reveal the teeth. It seemed to Mrs. Lockhart as if he were laughing; but only a madman could laugh at such a juncture, and she trembled with horror. It was immediately evident, however, that Sir Francis was simply in the grip of a horror vastly greater than hers, and that it had momentarily mastered him. Presently his eyes rolled, his head swayed forward, and, had he not grasped the balusters, he would have fallen. But calling up all his energies, he commanded himself a little, and, without attempting to speak, began the ascent of the stairs. Just then a door opened above, and Perdita's voice said in a hushed tone:

"Sir Francis, are you there?"

He stopped, and looked upward; then, still in silence, he mounted the remaining stairs with a laboured movement, and arrived, tremulous and panting, on the landing. Perdita was standing at the door of Philip's room. Her brows were drawn down, and her eyes, quick, dark, and bright, scrutinized the baronet with a troubled expression.

"Is he there?" the latter enquired.

"Who?" said Perdita reluctantly.

Sir Francis stared; then half lifted his hands and said: "I know about Grant: dead: can hardly believe it: left me last night in such health and spirits: but Tom . . . as Tom's my son . . . is he . . .?"

"You are too late," said Perdita, glancing away from him as he spoke. "Poor Tom! he deserved something better."

"Let me go to him," said Sir Francis, moving forward with a groping gesture, like one walking in the dark. He pushed past Perdita and entered the room. She remained for a moment on the threshold, following him with her eyes, and seeming inclined to retire and leave *him*; but she ended by stepping within and closing the door after her.

Sir Francis, however, was now unconscious of everything except that which lay on the bed before him. Tom's hands rested beside him on the coverlet; his father lifted one of them, and let it fall again. He then sat down on the side of the bed, raised the upper

part of the body and supported it on his arm, bending his face close to that of the dead boy, and giving vent at intervals, below his breath, to a kind of groaning sound, the most piteous that had ever fallen on Perdita's ears. She remained leaning against the door, with an air of painful contemplation.

After what seemed a long time, and was undoubtedly long it measured by its spiritual effects, the baronet's moanings gradually subsided into silence ; the veins in his forehead, which had become swollen and dark with the accumulation of blood to the brain, returned to their normal state, and the man sat erect, gazing into vacancy, with a demeanour of pallid and stony immobility. Thought seemed to be at a standstill within him, and even the susceptibility to suffering had become torpid. He sat thus so long that at length Perdita's restless temperament could endure the pause no more, and she spoke.

"Leave him now, Sir Francis. I wish to tell you something."

He betrayed no sign of having heard her. By-and-by she advanced to the bed, and stood directly in front of him.

"What do you wish me to do with this?" she demanded, holding up the sealed enclosure which had accompanied Grant's letter.

"These are not business hours," said Sir Francis sluggishly. "Tom and I are taking a holiday. Our work is done."

"His work is done, but not yours : you cannot have the privileges of death until you die," Perdita answered.

"I know more about death than you imagine," responded the baronet, in the same halting tone. "You needn't grudge me the privileges : I have the rest."

"I am sorry for you—sorrrier than I should have thought I could be," said Perdita ; "but there are some things which must be said between us : for my father is dead as well as your son ; and since I can no longer learn from him, you must hear and answer me. Come, Sir Francis ; I have always had my way with you in the end."

"No one has any weapons against me now ; they're all here !" said the baronet, laying his finger on Tom's shoulder with the word.

"I mean to know the truth, however," returned Perdita, with a resolution that sat strangely on her subtle and changeful beauty. "It was Tom himself who told me the man who called himself Grant was my father : the rest is contained in this enclosure ; shall I read it, or will you speak?"

"How came you by that?" inquired the baronet, for the first time fixing his eyes upon the packet in her hand.

"It was found, addressed to me, in the pocket of Charles Grantley's coat. But first, listen to this letter, which accompanied it."

"Not here!" said the other, lifting his hand. "Would you dishonour me in my boy's presence?"

"He knew enough to make him suspect you before he died."

Sir Francis shrank as if he had been stung. "Don't tell me that!" he exclaimed. "You may call me a robber and a murderer, if you like, and tell the world of it; I may have failed in everything else, but I kept my boy's confidence—he never doubted me a moment . . . did he?" At the last words his voice fell from passionate assertion to quavering entreaty.

"You are not much of a man," said Perdita coldly. "You should not be a villain if you fear to face the consequences and to stand alone. Tom was more manly than you; he despised you because you were afraid of Grantley, instead of crushing him, or, at least, defying him. And has no one suffered besides you?" she continued, with rising fire. "See what you have made of me! If my father had been with me, to love me, and for me to love and honour, I should not have been what I am. You parted us—as I now believe, by a cowardly and slanderous falsehood. You brought me up to think the thoughts of a woman of the world and a libertine while I was still a child. You gave me nothing to care for but my own success—for money and power; and at last you married me to a worn-out formalist, whose very virtues made sin seem delightful. I have never had help or sympathy from a human soul, and that dead boy is the only creature who ever honestly loved me—and he would not have done it if he had known me! But, thanks to you, I can't even be sorry for my failings now; I know more than I feel! I know when I've been injured, though I can't feel the injury, and I mean to have what is due to me. I have believed all my life that my father was an embezzler and a scoundrel, a man whose name and connection were a disgrace: a millstone round my neck; some one whom I was to remember only to forget and deny—and now, when it is too late to be of any good to me, because I am too old to change, and when he is dead, I am to find out that you, and not he, have been the villain! I have heard you whimpering over your boy, and I pitied you; but why should I pity you? Whom did you ever pity? If you had a glimmer of nobility left in you, you would be glad that he died before you were exposed and shamed. And you shall be exposed and shamed: I will do it! Here are your good name and prosperity, in this packet. Are you ready to see it published?" She

held the packet at arm's length before his face ; there was something almost appalling in the sparkle of her eyes and the bitter movement of her lips.

Sir Francis had listened to this harangue at first with a tremor of the nerves, as one who awaits the fall of a thunderbolt ; then even the strength to fear seemed to lapse away, and he sat gazing at Perdita with a dull unresponsive countenance, while she kindled more and more with the story of her wrongs and resolve to retaliate. When she ended with her fierce question he said heavily, "Do what you like, my dear. You don't know all. The letters are interesting—I'd have risked hanging to get 'em last night ; but I don't care to raise my hand for 'em now. You don't know all. I've struck myself a deadlier blow than you can strike me, with all the world at your back. Do what you like, and then . . . leave me alone with my boy. He and I may laugh over this some day—who knows !"

Perdita looked at him curiously. "Sir Francis," she said, "do you admit all these accusations? Remember, I haven't read these letters ; they are sealed still ; I have no sure ground yet for my suspicions. For all I could prove, you may be innocent—unless these letters are the proof. Are they or not?"

"I suppose they are," was his reply in the same tone as before. "I don't know what else they can be. Do what you like, my dear."

"Well, we shall see," said Perdita, after a pause. She turned and walked to the door and opened it. The door of Mr. Grant's room, on the other side of the landing, was ajar, and Marion was visible within. Perdita beckoned to her. Marion probably supposed that the Marquise was going to inform her of Tom's death, for she came forward at once with a face full of tender compassion and sympathy. The influences of the past night and morning had wrought an effect in Marion's nature and aspect like the blossoming-out of a flower whose delicate freshness had heretofore been veiled within a rough calyx. Such changes are scarcely to be described in set terms, belonging, as they do, rather to the spirit than to the body ; the outward signs seemed limited to a certain ennobling of the forms and movements of the face, a soft shining of the eyes, and an eloquent modulation of the voice. The imperious flush and angry preoccupation of Perdita's countenance, while they emphasized her beauty, put her on a level of attractiveness inferior to Marion's at this moment, despite the latter's comparative plainness.

"Can anything be done to help?" Marion asked as she came in. But as soon as she caught sight of Sir Francis she paused and murmured, "Ah, poor soul! I wish I could comfort him."

"He seems resigned," said Perdita ungenly. "Death alters us all, Marion, whether we die or survive. I am resigned, too ; though my lover is dead in this room, and my father in that !"

"Mr. Grant . . ."

"Yes, Mr. Grant—Charles Grantley, my father ; who was accused of high crimes and misdemeanours, and driven into exile, and who came back to England to see his daughter and be murdered by a footpad. You were fond of him, were you not?"

"Whoever he was, he committed no crime," said Marion loftily.

"Why, so I think. But up to this time it has been made to appear otherwise. If he was not guilty, he has been greatly wronged, has he not?"

Marion seemed about to answer impetuously ; but her eyes fell upon Sir Francis, and she compressed her lips and was silent.

"He has been a by-word of contempt and dishonour for twenty years," Perdita continued, "and now he has died with the stain still upon him. If he was innocent, that seems a pity, doesn't it? I am his daughter, and my honour is involved in his. You had a father : what would you have done in my place?"

"I would have found the proof of his innocence, if it was in the world."

"Well, and what then?"

"I should be content . . . I hope."

"I am not content !" exclaimed Perdita. "What use is the proof, unless to give him back his honourable name, and to punish the man who betrayed him? I have some letters sealed up here that will do all that, I think ; and Sir Francis Bendibow must be content to hear them read, and . . ."

"Do not do it, Perdita," interposed Marion, in a low but urgent voice. "His heart is broken already."

"What is that to me?" the other returned. "His broken heart will not mend my father's good name."

"Your father is dead," said Marion, "and you would kill him again if you do not let his spirit live in you. Why should you reveal the secret that he kept all his life? If he chose to suffer unjustly, it was because he was too noble to vindicate himself. He bequeaths his nobility to you ; and you should spare his enemies, since he spared them."

"This is a practical world," Perdita remarked, with an odd smile ; "I'm afraid it would misinterpret such refined generosity. However, your idea is interesting and original ; I've a mind to adopt it. It would be amusing, for once, to mount a moral pedestal above one's

friends. But I can't make an angel of myself in a moment : I shall give this packet to you to keep for me : if I were to read the contents I should never be able to hold my tongue. Here—take it quickly before my pedestal crumbles ! Well, Sir Francis, I wish you joy ; you are an honest man again !”

“If I had not been sure your father was innocent, I should know it now,” said Marion. “Wicked men do not have such daughters.”

“Thank you, my dear ; you must let me kiss you for that ; though my virtue is not my own, but yours. Now take me into the other room ; I wish to see my father before I go.”

Marion accompanied her to the chamber where Charles Grantley lay, and would have left her at the threshold, but Perdita kept fast hold of her hand, and drew her in. They stood beside the bed and looked down at the quiet face.

“What are hardships?” said Perdita after a while. “Are they what happen to us, or what we create in ourselves? He seems at peace. Hardships are hard hearts. Good-bye, father. After all . . . you might have kept your daughter with you !”

After giving some directions about the body, she departed. But Sir Francis still remained in Lancaster's chamber, with his son in his arms. Their holiday was not over.

CHAPTER XXIII.

WHEN a man is dying, or just dead, it often seems, to those interested in the matter, that he is taken off prematurely ; that he leaves his life uncompleted ; that his usefulness was not at an end ; that he and those who were bound to him would have been the better had he survived. Death seems like a violence, a robbery, a wrong ; and all the more wrongful a robbery, because we are powerless to resist it or to punish it. The mother who mourns her infant, the lover who looks on the dead face of his mistress, the child who feels a dim horror at the unresponsive coldness of the hand whose every touch was love, the friend who sees the horizon of his own life darken and his pathway narrow at the grave of his friend—to these it seems that an injury has been inflicted upon them, the traces of which no compensation can remove.

And yet, as the mind moves forward through the succession of moods and events that is called time, how speedily this wound of loss is healed ! Not those who nurse their grief the longest are always the ones who loved most generously and whole-heartedly.

Often there is more love of self than love of the departed in those who refuse to be comforted. By-and-by, as we journey on along the road of mortal existence, meeting at every step fresh scenery and new thoughts and demands for action, and knowing that for us there is no retreating, no pausing even,—only, at most, a profitless glance backward at scenes and occurrences whose sole reality now is in the growth or decay which they have wrought in our own souls,—by-and-by we begin to discover that the dead have not been left behind ; that, in such measure as we truly loved them, in that measure are they with us still, walking hand in hand with us, or shining as guides of our forecasting thoughts, and strengthening our hearts in dreams and secret musings. Death, which seems so arbitrary and reckless, is vindicated by our wiser and calmer judgment. The mortal life that seemed cut short, is seen to have lasted out its fitting span ; more years would have been more evil and less good, more weariness and less use. Suddenness is predicable only of material things ; in the processes and passions of the spirit there is at all times just proportion and equable movement. It is outside the domain of accidents and violence.

As regards Charles Grantley's death, there was not, it may be surmised, any wide necessity to preach resignation. His acquaintances were not many ; his friends few indeed. To the majority even of those who knew him, his true name and antecedents were unknown. The mystery and ambiguity which had attached to him were scarcely likely to increase his popularity ; and probably the only thing that could have drawn anything like general attention to his end was the fact of its being a murder. But murders and robberies were not so rare in the London environs then as they are now ; at all events, they excited less remark ; a highwayman was still a difficulty to be reckoned with by belated travellers ; and, moreover, men's minds had become more or less callous to the idea of bloodshed and violence, after so many years of wars and outrage. Accordingly, Mr. Grantley's funeral was but thinly attended, comprising few or none beyond the indispensable churchyard officials and the immediate personages of the present history. From the number of the latter, indeed, Sir Francis Bendibow must be subtracted. Another funeral took place on the same day, in which he may be supposed to have felt an even greater interest ; and yet he was absent even from that. The fact is, the unfortunate baronet's mind had received a shock which prevented him from clearly apprehending the full extent of the calamity which had caused it. The notion that he and his son were enjoying a holiday together, and were not to be disturbed,

seemed the most inveterate of his delusions, as it had been his first. Possibly it was not so much positive mania in him as the uncontrollable shrinking of his soul from the horror of the truth; analogous to the instinct which makes us turn away our eyes from a too-revolting spectacle. Feeling that to confront and realise the facts would overturn his reason, he abandoned reason in the effort to preserve it. But all the while, in some remote recess of his mind, veiled even from himself, must have lurked the fatal knowledge which he strove to escape. It was there, like a relentless and patient enemy, lying in wait for him, and sure to spring forth and throttle him at last. Else wherefore was there that furtive gleam of terror in the baronet's sunken and heavy-lidded eyes? Why did he sigh so deeply and so piteously? What was the reason of those long fits of musing, during which his face worked so strangely, and his lips grew so white and dry? Why did he so anxiously shun the sound of whatever might imply the truth? No; if this were madness, it was the madness of concealment, not of ignorance. Only a gleam of sanity could render him truly insane.

Be that as it may, it became known that the late events had compelled Sir Francis to retire temporarily from society, and from the conduct of his business; and much sympathy was expressed on all sides for the unhappy gentleman; and grave speculations were indulged in as to the probable future of the Bank, in case his retirement should be prolonged. Not readily were to be found business aptitudes and experience comparable to his. Moreover, the times were hard just at present; and although the Bank's credit was now, as at all times, unexceptionable, yet even the Bank was but a human institution, and all human institutions partake of human perishableness. It was impossible to be too prudent, when, as now, empires might change hands or vanish at any moment. Finance is not a matter of sentiment; and though it is always agreeable to have business relations with a man who is at once aristocratic and charming, yet when the personage in question is represented only through his clerks, such considerations are in abeyance. Thus it happened that a good many clients of the famous Bank of Bendibow Brothers withdrew their deposits and placed them elsewhere; and the world went on.

Meanwhile the murderer of the old East Indian remained at large, the police being unable to form any trustworthy idea as to who or where he was. At the inquest, everybody who could be conceived to have any connection with the case (including the baker who lent Miss Lockhart his wagon, and the ostler of the 'Plough

and Harrow,' who entertained Mr. Thomas Bendibow on the last evening of his life) were strictly examined; and though several of them proffered a vast deal of information, little or none of it had much to do with the matter to be elucidated. The last highwayman who had been known to infest the vicinity in which the murder took place, had been captured and safely hanged some time before; and this new aspirant for the slip-knot evidently meant to prolong his career for a while longer. His present venture must have been a disappointment to him; for it was shown that the deceased had not been robbed (doubtless on account of the unexpected arrival of succour); and, even had the succour not arrived, no robbery worthy of the name could have taken place, inasmuch as the deceased had little or no money in his pockets; nothing, in fact, but a packet of old letters, which were of no interest to anybody, and to a highwayman least of all. The jury returned a verdict of "met his death at the hands of some person or persons unknown;" and the world went on.

But the seed of that flower of love that had been planted in the soil of Charles Grantley's grave took root, and grew, and blossomed; and it bade fair to be as sweet and wholesome a flower as ever such seed produced. Marion and Philip, looking into their future, could see nothing but brightness there, all the brighter by contrast with the tender shadow of sadness out of which they looked. Nothing but good, they believed, could come from a union begun at such a time, and with such a consecration. The influence of Grantley was with them, with almost the vividness, at times, of a spiritual presence; and they insensibly spoke and acted on a higher and purer plane than they would have done had he not lived and died. If his mourners were few, few men have been more tenderly mourned; and to Marion especially was his memory dear and reverend, by reason of the cloud that had overhung so large a portion of his life. That cloud, to her apprehension, had now become all illuminated with heavenly gold; and she felt as little need to confirm her faith by an examination of the packet left in her care, as to ask Philip for proof of her love for him. Marion was enthusiastic and imperious in her faiths even more than in her scepticisms. But, indeed, her whole nature was, for the time, sweetened, subdued, and yet ardently developed. The strangeness and harshness which had occasionally characterised her in the past, was now no longer noticeable; her moods were equal, her heart was happy and active. It seemed as if nothing could obscure her serenity; and yet a woman in her condition is peculiarly liable to tragic or chilling accidents. The delicate and sensitive petals of the soul, expanding thus freely to the

unaccustomed air, are never so susceptible as now to blight and injury, albeit it is from one source only that the harm can come. Let the lover walk heedfully at this period of his career, nor even grasp his treasure too firmly, lest unawares it vanish from his hand, or be transformed into something hostile.

The reading of Mr. Grantley's will was, for various reasons, postponed until about a week after his funeral. Merton Fillmore, who had charge of it, had sent a communication to the Marquise Desmoines to be present on the occasion; but she, after some delay, finally let it be known that she declined the invitation, observing that she had but the slightest acquaintance with the gentleman who called himself Grant or Grantley, and that it was impossible to suppose that she could have any interest in the disposition of his property; from which it may be inferred that she had made up her mind to ignore, ostensibly if not also from conviction, his pretensions to relationship with her. Upon receiving her letter, Fillmore stroked his chin with a slight, ambiguous smile, and forthwith took measures to convene the meeting at Mrs. Lockhart's house on the following morning, at twelve o'clock.

Now, it so happened that Philip had, the evening previous, received a note from his publisher in the city, requesting his presence at the office betimes the next day. For Philip's labours during the last few months had resulted in the production of a poem, more ambitious in design and larger in scope than anything he had heretofore attempted. His earlier writings, indeed, had been chiefly lyrical in character, and had been rather indicative of poetical moods and temperament in the author than of those unmistakable gifts of seeing, feeling, and creating that belong to poets by divine right. He had made good his claims to be ranked among the aristocracy of genius—possibly among those whose place is near the throne; but he had as yet put forward no serious pretensions to wear the royal crown on his own brows. The present work, which bore the title of *Iduna*, seems to have been a semi-mystical composition, cast in a more or less dramatic form, and aiming to portray the conflict which is to some extent going on in every human heart, between the love that consults and indulges selfish interests or impulses, and that nobler and purer love which strikes through the mortal and temporary symbol to the divine and eternal reality. To illustrate this theme, Philip had imagined a wild, sea-beaten kingdom, situated somewhere in the unexplored ocean of time; a rocky vision of a royal castle, and living there a warrior king, grim, whose beard drifts like the snow blown from a mountain-top across the sky. To him was born *Iduna*,

glorious in beauty, untamable in spirit, dowered from her infancy with mysterious and half-supernatural gifts. For, once, when little more than a baby, she had wandered alone from the castle, and down to the misty reaches of the wave-beaten shore. What happened to her there was never known; but round her neck was hung a broad necklace, wrought with more than human skill of workmanship, of unknown shells and precious stones and links of virgin gold. The necklace was endowed with talismanic attributes, conferring on the grim king's daughter miraculous powers and the lustre of a goddess; and it was whispered among the people that it was the gift of some mighty spirit of the sea, some ocean demi-god, who had met the little princess on the shore, and who, if she remained true to the sublimity of her fate, would one day claim her for his bride. But woe to her should the magic necklace be lost or yielded up! At these foolish fancies the grim king laughed and tossed his beard; but, as Iduna grew in stature and in the splendour of her beauty; men said that for such as she no merely human destiny was meet; and when, at certain seasons, the sea thundered more resoundingly along the coast, and the wreaths of foam were swept by the fierce breeze past the castle battlements, Iduna would mount her horse and ride forth, as if she heard the voice of her god-like lover calling to her in the gale, and saw his form moving towards her over the tumultuous crests of the ocean billows; though to other eyes than hers he would appear but as a pillar of gleaming mist, a stately phantom of the storm, half seen, half imagined. At these superstitions the grim king frowned and swore by his beard that the girl should learn—and that ere long—the sufficient worth of a mortal bridegroom.

Of this earthly love; of the loss of the magic necklace, and with it the protection of the sea-god; of Iduna's imprisonment in the castle; of her final recovery of her talisman by the self-sacrificing agency of him whose happiness depended upon withholding it from her; and of her escape from the castle: of these things no more than a hint can be given. Seaward she rode, and the storm came up to meet her. But the tidings of her flight came to the king, and he mounted his war-horse and thundered with all his knights in pursuit. Wilder grew the storm; the heavens were darkened, and seemed to stoop to the earth; strange sounds, as of the fierce mutterings and laughter of viewless spirits, filled the air. Yet still the grim king rode on, and, filled with grisly forebodings, his knights pressed after him in silence. Then the blast shrieked madly in their ears; the earth rocked and shuddered; ghastly lights flickered along the blackness of the sky; and the sea, gathering itself together in a

thunder-smitten battlement of toppling surges, swept forward on the land. Yet, ere it engulfed them for ever, they saw by the glimmer of phantom fires the form of Iduna flying far before them, her black hair floating backward on the hurricane, and the magic necklace flashing round her neck. And even as the waters smote them, a god-like apparition seemed to emerge resplendent and serene from the midmost heart of the tempest : toward him Iduna stretched her arms, and was folded to his breast.

When the sun rose again, castle and kingdom, knights and king, had vanished, and the gray sea rolled its murmuring billows fathoms overhead. But tradition tells that in the night, after the princess had gone forth, the lover who had liberated her to his own dear cost, mounted to the topmost turret and gazed seaward, and, as the destroying wave came towering toward him through the roar and terror of the darkness, he saw, riding with it on its awful crest, two beings of superhuman beauty and grandeur. As they drew near him, he bowed his head, trembling ; but his heart seemed to hear a voice that was like Iduna's, murmuring his name, and her soft fingers touched his cheek. He seemed to be gathered up out of himself, and to move beside her ; the tempest was still ; they were together and alone, and the morning broke.

Such, in bare prose, is the outline of the poem to the making of which Philip had brought his best talents and energies, and on the merits of which he had been fain to stake his fame. Being done, however, and in the printers' hands, he had lost heart about it ; felt that it was cold and inadequate, and regretted that he had not been wise enough to have kept it for ten years, and then destroyed it. Accordingly his publisher's summons, coming as it did within a fortnight of the time the book appeared, failed to kindle in him any pleasurable anticipations ; and on his way to the city he pretty well made up his mind to abandon poetry as a profession, and take to something else. It was all very well to amuse one's self with such vanities while one is a boy, but now that he was about to take to himself a wife, Philip felt that he ought to adopt some more remunerative calling. He presented himself at the office, with a very grave face, about ten o'clock.

The publisher bowed, and begged Mr. Lancaster to be seated. "I should have had the honour to wait upon you at your own residence, sir," he said, "but as it was desirable to have your signature to some receipts, and for other business reasons, I took the liberty—er—well ! Now, Mr. Lancaster, I don't know what your expectations were ; it was only natural that they should have been

great ; so were mine ; but, to tell you the truth . . . however, judge for yourself." And he handed him a paper, on which was a brief statement of accounts. "We have been on the market only ten days last Wednesday," added the publisher, "and I call the results thus far fair—fair! Sir, they deserved to be ; but I doubt not we shall do better yet."

"What is this about?" inquired Philip, who had been staring at the paper. "What does this entry of eleven hundred and fifty pounds mean?"

"Your profits on the percentage, as agreed upon," answered the publisher. "We published at ten and sixpence, you know."

"Oh . . . I see!" said Philip quietly. His heart heaved, and he knew not whether he were more likely to burst into a storm of tears or a shout of laughter. "That seems to me very good indeed," he compelled himself to add. "Didn't expect the half of it."

"Genius like yours, sir, may expect anything—and get it!" said the publisher sententiously. "There is no poet before you, Mr. Lancaster, to-day—not one! Do you care to take the cheque with you now, or . . ."

"I suppose I may as well," said Philip.

Some transactions were gone through with ; Philip never remembered what they were. At last he found himself, as if by magic, at the door of the house in Hammersmith, with eleven hundred and fifty pounds in his pocket. He threw open the door of the sitting-room and strode in.

He had forgotten all about the reading of the will. There was Mr. Fillmore, with the document in his hand, just reading out the words—"I give and bequeath to Marion Lockhart;" and there was Marion, with a startled and troubled look in her eyes.

(To be continued.)

*PYRAMID PROPHECIES AND
EGYPTIAN EVENTS.*

ACCORDING to pyramid prophets, this year, 1882, is the one in which some great change—closing the Christian Era (as such)—is either to be brought about or to begin, July 1882 being the fateful month ; and already they find in events in Egypt clear evidence that pyramid prophecies are sound. Let us inquire a little into this strange delusion.

In all ages, men have been fascinated by the idea of foreknowledge—of some power, no matter how obtained, of anticipating what lies hid in the bosom of futurity. Dreams have been studied with the hope that they might reveal the hereafter. The movements of the sun and moon and planets and stars, have been watched in the belief (for here we touch on a method in which men have recognised something more than a mere hope) that from them not only the immediate but the remote future might be foreseen. To this day these ways of anticipating what is to happen hereafter retain their hold on the ignorant, nay, even on a few who, without being altogether ignorant, are darkened by faith in the mystical and the mysterious. Other methods of prediction, such as fortune-tellers employ, may seem too contemptible perhaps for consideration ; yet if all who really place some faith in fortune-telling by palmistry, by the cards, by the study of tea-grounds, and by other ridiculous and preposterous methods, were to acknowledge the faith that is in them, I fancy the sensible part of the community would be surprised to find how many foolish persons there are ; nay, I think they would find themselves in a decided minority. It has been my fortune to visit many lands in the Old and New World, and both in the northern and southern hemisphere. During my journeys I have come in contact with thousands of persons who take interest in astronomy, and may be supposed to stand considerably above the average in intellect and education. From these I have been able to form a very fair estimate of the views generally prevalent on the relationship of astrology to the science of the day, while I have

often extended my study of men's views on this matter to the inquiry whether they entertain any belief still in dreams, fortune-telling, palm-reading, and like methods of learning what is to happen in the future. From such observations—not pursued, I need hardly say, as actual inquiries, but yet as the result of very frequent opportunities of attaining information during ordinary converse—I have come to the conclusion that certainly half the educated classes, and probably ninety-nine hundredths, if not *all* of the uneducated classes, still believe in what science has long since utterly rejected.

It is to be noticed that in these matters, even those who believe in the most foolish superstitions are not altogether unreasoning. I could show by the record of conversations I have held with believers, even in such nonsense as fortune-telling by cards, that these simple persons can generally give a reason for the faith that is in them. Of course, to any one acquainted with the original history of cards, the idea that there can be any influence, holy or the reverse of holy, by which these bits of painted card should be able, in instructed hands, to reveal the future, seems utterly absurd; and, at a first view, it would seem that believers in such influence must be next door to idiots. But when you analyse their belief, you find that it is in reality based on observation. They can tell you—truly, I have no doubt—of a number of remarkable cases of fulfilment of card-inspired prophecies. And as they have neither the knowledge of the history of playing cards which should suggest the *à priori* absurdity of their faith, nor the power of estimating evidence, and especially of weighing failures against successes, which should enable them to recognise the overwhelming balance of *à posteriori* evidence against their belief, they remain in the faith that fortune-tellers, aided either from above or below, can, by means of fifty-two playing cards, tell what is to happen to every one of us.

If this is true of such absurdities as these, we recognise the truth still more clearly in studying the origin of faith in astrology. As I have elsewhere shown, the doctrines of astrology, however preposterous they may seem and *are* at present, were originally based on a very reasonable theory. Before the true nature of the stars and planets had been determined, a believer in their influence on the future of men and nations could make out a very strong case against an opponent of that doctrine. The displacement of the earth from the centre of the solar system was the first blow received by astrology (apart from that delivered when, in more remote times, the earth was proved to be a globe); but it was when the laws of physics were established, when the gravitating, heating, and illuminat-

ing influence of the heavenly bodies was determined and measured, that the foundations of astrology were shaken : then before long the whole structure was levelled with the ground.

Granting certain postulates, the faith now held by a small but earnest body of believers in what may be called pyramid prophecy, seems certainly not less reasonable than faith in astrology was in past times. There are inherent absurdities in the pyramid faith, as there are in all systems of prophecy ; but there is a basis of what looks like real evidence, which many find very firm and solid. The prophecies themselves which are associated with the Great Pyramid are of an impressive kind, though they are not very definite. They point, like all prophecies in which a very wide interest has ever been taken, to the end of the world, or at least of the present "dispensation," and the inauguration of some new order of things in which, we may assume, the believers will find advantage from the fulness of the faith they have shewn.

Let us see how these views first came into existence. The inquiry is interesting, as relating to one of the few cases in which the birth, growth, and development of a superstition can be clearly traced and followed.

Tradition and history agree in assigning the building of the Great Pyramid (like that of the other pyramids of Ghizeh) to a monarch or a dynasty, not moved by any specially unselfish purpose, but, on the contrary, ready to sacrifice large sums of money raised by cruel taxations, and the lives of many thousands of labourers cruelly impressed for the work. The memory of the despots who built the pyramids was held in hate and abhorrence by the Egyptians, for what seemed to later times most adequate and sufficient reasons. Men could not, however, but admire the wonderful masses of masonry thus raised at the border of the Egyptian desert, so massive as to resemble the works of nature, so stable that they remain after thousands of years scarce touched, beneath their surface layers, by the storms of heaven, or by the movements of the earth, or by the destructive work of man. Even now it may be questioned whether any amount of labour which all the rulers of our day could impress for the work, would suffice to destroy these monuments of Egyptian tyranny, without the aid of gunpowder, dynamite, or other methods of scientific destruction.

It was never held, however, even by the most ignorant Bedaween, that the pyramids contained hidden knowledge of any sort, still less that they concealed prophetic intimations.

Yet when Mr. J. Taylor, taking the best measures of the Great

Pyramid known in his time, found, or seemed to find, in that edifice, the solution of the (to many) mystical problem of the squaring of the circle, birth was given to the doctrine, shortly to develop into marvellous proportions, that the builders of the Great Pyramid concealed within its once goodly casing profound mathematical and astronomical knowledge—nay, such knowledge as without divine aid they could never have acquired. One by one, all the triumphs of science since the time of Galileo have been found to be anticipated and revealed in the structure of the Great Pyramid. The science of the *next* century lies equally in this mysterious structure, concealed *now*, but to be revealed there when—well, when it has been otherwise discovered. I speak with some knowledge of the subject, though not acquired precisely as the pyramidalists acquired theirs, when I say that there is not a discovery effected during the last thousand years, or which can by any possibility be effected during the next thousand years, which may not be shown by their methods to be embodied in the structure of the Great Pyramid—or of any other pyramid, or in St. Peter's at Rome, or St. Paul's in London. Any number you please may be found with a little patience in any one of these buildings, and every scientific relation may be indicated by a number. Then, among numbers so found, many will be repeated in different ways, and so the apparent evidence from coincidence will seemingly be strengthened, though in reality weakened, because every such double or treble coincidence shows that pure coincidences can always be recognised among any numbers taken either at random, or from any set however determined. Thus, among the various distances, dimensions, periods, &c., within the solar system, or rather among the numbers representing these, there are multitudes of coincidences purely accidental, though only the astronomer, perhaps, may be able to distinguish those which are accidental from those which are real.

It is, in fact, here that the significance of pyramid relations is most misleading. To the inexperienced a coincidence has always some meaning. He asks you how such and such a coincidence can possibly be explained; and if you answer that you do not explain it any more than to say that it *is* a coincidence, *et voilà tout*, he considers that you are in reality as much mystified as he is, only you will not admit as much. But science recognises the absolute certainty that coincidences *must* recur—coincidences which, judged alone, seem of the most marvellous kind. So that the man of science is no more impressed by the mere occurrence of a coincidence, than a man of sense is impressed when, happening to read in one column of a

newspaper that a man named John Hawkins had been killed in a street row, he chances at the next turn of the paper to light on a review of a biographical sketch of Sir John Hawkins, the great seaman. As the one knows that there is no marvel or mystery in the coincidence of names, so the other can distinguish from coincidences implying real connection those which have no such meaning at all—those which, in fact, *cannot* have such a meaning (for there are some coincidences which at a first view may be either significant or not so). For example, science knows certainly now—though at one time she was not so certain—that the relation connecting the mean distances and the periods of revolution of the planets is the result of a real physical cause, and science might have guessed as much and did guess as much long before Newton explained the significance of the numerical coincidences recognised by Kepler. Again, science sees that there is probably some real significance in the orderly arrangement of the paths of the planets as regards their distance from the sun (the so-called law of Bode) and in the corresponding laws regulating the distances of the satellites of Jupiter and Saturn, for these peculiarities are suggestive of law. Even if they were not so, there would be nothing unreasonable in the supposition that they indicate a real physical cause for the observed relations. But take such a coincidence as the following. If the number of days in a year be multiplied by twenty-five, and the number so obtained be squared, and the square doubled, the resulting number is (*quam proximè*) the square of the number of years in the great precessional period in which the earth accomplishes her mighty reeling movement, as, like a gigantic top, she “spinning sleeps on her soft axis as she paces even.” In such a relation as this, science knows certainly that there is nothing but mere coincidence. There can be no real connection between twenty-five times the number of days in the year, with squaring and further multiplying, and the square of the number of years in the precessional period. To the inexperienced it seems that there may be; for he sees that the number of days in the year is the number of rotations made by the earth in that time, while the great precessional period must of course depend on the number of rotations made by the earth in a year. But to argue that therefore any such coincidence as we have indicated could arise, *ex necessitate*, would be like reasoning that, because the number of steps a man takes in walking from Brompton to the Bank must depend in some degree on the size of the boots he wears, there must be some real meaning in the circumstance (supposing such a thing observed) that the number of steps he took had been exactly twice the fourth

power of the number representing the size of his boots (say, for instance, he wore "eights" and counted 8,192 steps—*i.e.*, twice $8 \times 8 \times 8 \times 8$).

Now, the chief apostle of the pyramid religion (and we may really use the term apostle, seeing that he regarded himself as "sent forth" to obtain evidence in support of the doctrine taught by Mr. John Taylor, the founder of the religion) falls into just such misconceptions as these. Prof. Piazzi Smyth is an astronomer, and in some degree a mathematician, but he shows no power whatever of appreciating the real value of evidence. I will not take in proof of this the pyramid coincidences, though, as I have elsewhere shown, they prove it abundantly. I take instead his idea that there is some mystical meaning in the prevalence of threes and the small number of sevens in the number representing the proportion of the circumference to the diameter of a circle. No one who understands the laws of numbers could hold such a doctrine for a moment. No one, again, who understands the laws of probability finds such a circumstance even remarkable. It may be shown that, taking numbers absolutely at random, till some two or three hundred have been obtained, the odds are in favour rather than the reverse of one number at least occurring oftener than any other, while one number at least occurs less often than any other, in the degree observed with the threes and sevens in the famous "circumference number." As I have shown elsewhere, there is even a greater preponderance of one number and deficiency of another in the numbers representing the proportion which the diagonal of a square bears to the side. It is not exaggerating the case to say that any one who finds a mystical meaning in such coincidences as these is placed entirely out of court, as one whose opinion on questions of coincidence or probability is demonstrably without weight. But to many the mere fact that an astronomer and mathematician has expressed strong faith in the significance of pyramid peculiarities has great weight, while the coincidences themselves, ably presented so as to seem apparently strengthened (instead of weakened or rather destroyed) by reduplication,¹ seem to supply overwhelming evidence in favour

¹ Thus, Professor Smyth gives the height of the pyramid as a certain part of the sun's distance (which it is,—about as nearly as is the length of York Minster). He also gives the perimeter of the base as containing as many inches as there are days in a hundred years. And he further gives the perimeter of the base as bearing to the height the proportion which the circumference of a circle bears to the radius. Here are three wonderful and mystical coincidences, and here, therefore, is evidence of threefold strength. Yet it is certain (and obvious to the mathematician) that granting any two of the coincidences to be real, the third *must* be accidental.

of *intentional* arrangements typifying or symbolising various physical facts or relations. "On such ground," says Prof. Smyth, "Mr. Taylor took his stand, and after disobeying the public opinion of profane Egyptian tradition and setting at nought the most time-honoured prejudices of the Pagan world so far as to give a full, fair, and impartial examination of the case, announced that he had discovered in the arrangements and measures of the Great Pyramid then recently made upon it, or as it now exists, and on these again corrected for dilapidations and injuries of all intervening time so as to arrive at its physical condition, certain scientific results, *which speak of much more than, or rather something quite different from, human intelligence.* For, besides coming forth suddenly in primeval history without any childhood, or known preparation, or long-acknowledged duration, and slowly growing servility afterwards—without any of these human features, I say, the actual results at the Great Pyramid, in the shape of numerical knowledge of grand cosmical phenomena of both earth and heavens, not only rise above, and far above, the extremely limited and almost infantine knowledge of science possessed by any of the Gentile nations of 4,000, 3,000, 2,000, nay 1,000 years ago, but they are also, in whatever they chiefly apply to, *very essentially above any scientific knowledge of any man up to our own time as well.* This is indeed a startling assertion, but from its subject admitting of the completest and most positive refutation if untrue. For the exact science of the present day, compared with that of only a few hundred years ago, is a marvel of development, and capable of giving out no uncertain sound both in asserting itself, and stating not only the fact, but the order and time of the minutest steps of separate discoveries. Much more, then, can it speak with positiveness, when comparing our present knowledge against the little that was known to man in those early epochs before physical science had begun, or could have been begun, to be seriously cultivated at all."

All this, granting always the postulate that certain observed numerical coincidences imply knowledge of facts which could not possibly have been known to the pyramid builders except from some extra-human source, involves, of course, very important consequences. If scientific knowledge, divinely communicated, is stored up in the Great Pyramid, other extra-human knowledge may be there also—nay, rather *must* be there. For, merely to store up statistics about discoveries which man was to make himself *before* the pyramid disclosed its secrets, would have been altogether preposterous on the part of the real originator (on this theory) of

the pyramid proportions. The evidence of superhuman knowledge of scientific matters *could* only be accumulated in the pyramid to give support to other teachings—to force men of the more thoughtful sort to accept those teachings, and to learn from them whatever lesson they were intended to convey.

Those, therefore, are certainly right who say that, if the Great Pyramid contains the evidence of superhuman scientific knowledge, it must convey divinely inspired information about religious matters too. It is demonstrably the only conceivable *raison d'être* for an edifice of this kind. We may put the syllogism thus. The architect of the Great Pyramid was, according to the pyramid faith, superhumanly wise ; to hide away scientific knowledge which would have been superhuman when the pyramid was built, till after such knowledge had been humanly acquired, would have been, were it the final object of the architect, superhumanly idiotic ; therefore this was not the final object of the architect, or else, which pyramidologists reject, he was either not superhumanly wise, or the building does not contain evidence of superhuman knowledge, or both.

Unfortunately, the Bible makes no direct mention of the Great Pyramid. Of course we may find any number of hidden references to the building if we only look for them in a confiding spirit. In the "stone which the builders rejected" we may find the top casing stone of the pyramid, an awkward five-cornered stone to lie about before use, a stumbling stone and rock of offence, but afterwards to be the chief corner stone, and so forth. This would show, too, that all that seems to relate only to the Temple at Jerusalem bore subdued reference to the Great Pyramid ; and this brings in a whole host of interesting pyramidal passages both in the Old and New Testament. But apart from this, the holders of the pyramid faith can bring Mahomet to the mountain if the mountain hesitate to approach the prophet. "Although some well-meaning persons may have too hastily concluded, merely because they do not find the very name pyramid written down in scripture, that therefore there is nothing about the Great Pyramid in the Bible, yet they may rest perfectly assured that there is a great deal about the Bible subject in the Great Pyramid, which building is moreover an earlier document in the history of the human race ; while the putting together of its stones into the vocal and deeply-meaning shapes we see them in now was absolutely *contemporary* with the first of the primeval events to which it was destined to bear indubitable witness in the latter days, and not sooner."

Since, then, the Great Pyramid is bound to be prophetic, it

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It was, then, from the lower end of the grand gallery (C, in the figure) that the study of pyramid prophecy began. Thence in southward procession begin the years of Christ's earthly life, expressed at the rate of a pyramid to a year. Three-and-thirty years or thereabouts bring us over against the mouth of the well, W W, the type of his death and of his resurrection too (reasons not given); "while the long lofty grand gallery shows the dominating rule of his religion, overspanned above by the thirty-six stones of his months of ministry on earth (along *c d*), and defined by the floor length in inches as to its exact period. The Bible fully studied shows that he intended that first dispensation to last only for a time; a time too which may terminate very much sooner than most men expect, and shown by the southern wall (D *d*) impending."¹

This may sound very like nonsense, but if it has any meaning we ought all to be considerably interested. It was in 1865 that Mr. Menzies—we mean Manasseh—wrote as above. The floor of the grand gallery was then measured at 1,881 inches, but the south wall *impending* seemed to imply that though the Christian dispensation might *end* in 1881, the "beginning of the end" would be five or six years earlier. Later measurements made the length of the floor 1881.59, corresponding in time to the beginning of July, 1882. So that we may perhaps recognise the beginning of the end in the Turko-Russian War, and the absolute coming on of the end in the bombardment and destruction of Alexandria, or rather we may see in these events evidence more or less symbolic that the end began some five or six years ago, and is coming at this present time. Perhaps before these lines appear it will actually have come (and the transit of Venus not yet observed!)

So important are such inferences from pyramid prophecies that we naturally look round for confirmatory evidence. If the pyramid has been correctly predicting (though unfortunately not understood all these thousands of years) the events to occur in the nineteenth century, it must also have indicated somehow or other the events of preceding times. We look in vain along the grand gallery for anything relating to the Mohammedan religion, to the Reformation, or to other events which have occurred during the Christian dispensation, and been thought rather important. In fact, there is absolutely nothing in the way of prediction between the wall at one end and the impending wall at the other end of the great ascending gallery.

¹ Professor Smyth says the northern wall, C *c*, does not impend like the southern; but in his drawing, made before Mr. Manasseh's letter, both walls impend.

This is unfortunate ; but we may find something outside the great gallery. On the southern side we find the antechamber and the king's chamber, but they indicate what is to happen after the Christian dispensation, and we can safely leave their interpretation to the time when the events they symbolise shall have happened. Let us go the other way, or rather let us pass incontinently to the northern end, A, of the descending passage. Here, for reasons, we place the dispersion of mankind, or the time "when men declined to live any longer the patriarchal life of divine instruction, and insisted on going off on their own inventions, when they immediately began to experience that universal *facilis descensus Averni*" (or *Averno*, as the best texts have it) "of all idolaters ; which is so sensibly represented, to the very life or death, in the long-continued descent of the entrance-passage of the great pyramid, more than 4,000 inch-years long," from A to P, "until it ends in the symbol of the bottomless pit," P, "a chamber deep in the rock, well finished as to its ceiling and top of its walls, but without any attempt at a floor."

But while the human race was thus passing downwards to the bottomless pit at an angle of twenty-six degrees and a third, an escape was afforded in that long and mournful history of human decline. For at about D the exodus took place, leading "a few only" upwards—also at an angle of twenty-six degrees and a third—towards the Christian dispensation (which also, oddly enough, guides men upwards at the same angle). "Another escape," indeed, "was also eventually provided, to prevent any immortal soul being necessarily lost in the bottomless pit" ("I am not mad, I do but read madness"); "for before reaching that dismal abyss, there is a possible entrance, though it may be by a strait and narrow way, to the one and only gate of salvation through the death of Christ—viz., the well representing his descent into Hades: not the bottomless pit of idolaters and the wicked, at the lowest point to which the entrance-passage subterraneously descends, but a natural grotto rather than artificial chamber in the course of the well's further progress to the other place ; while the stone which once covered that well's upper mouth is blown outwards into the grand gallery with excessive force (and was once so thrown out and is now annihilated), carrying part of the wall with it, and indicating" (again I say, "I only read madness") "how totally unable the grave was to hold" the Founder of the new dispensation "beyond the appointed time."

All this thought Mr. Menzies, and said Mr. Casey (of Pollerton Castle, Carlow), "sounds fair and looks promising enough." But we must have more. It is not enough that from A to B represents

within 40 or 50 years, according to historians (but exactly, according to pyramidalists), the time between the descent of man and the exodus, and that B C represents with similar inexactitude, according to those troublesome persons the historians, but again exactly, according to pyramidalists ("Mr. Dick sets us all right," says Miss Trotwood), the interval between the exodus and the birth of Christ, while C D positively represents the interval between the latter event and about the present time (only unfortunately giving no indication whatever of several events which some of us in our ignorance and fatuity consider quite as important as the exodus); we must also find evidence somewhere that the pyramid was really built in the year 2170 B.C., as it surely must have been, although Egyptologists one and all assign to Cheops a date more than 1,000 years earlier. We might pause in passing to ask about the horizontal passage C Q, leading off from the well's mouth to the queen's chamber. What in pyramid symbolisation (symbolisation is excellent) may that mean? And again, we might ask why the well leads out of that hell-tending passage just at *w*, which according to time-measurement corresponds to about 1160 A.D.; and how time is measured down the well W W *w*; and why the grotto is not nearer C or nearer *w* in distance, that is, in time. But as nothing seems likely to come out of such inquiries, let us look for the date 2179 along A B. "That date, according to the theory, must be three or four hundred inches down, inside the top or mouth of the entrance-passage"—that is, three or four hundred inches from A. Something will surely come of this, for a hundred inches is a pretty wide margin. "But if any trial was to be considered a crucial one, surely it was this!" "So away I went to my original notes to satisfy him," says Professor Smyth, referring to Mr. Casey; "and beginning at the north end of the grand gallery, counted and summed up the length of every stone backward all down the first ascending passage, then across the entrance-passage to its floor, then up its floor-plane towards its mouth, and then saw that the 2170 B.C. would fall very near a most singular portion of the passage—viz., a place where two adjacent wall-joints, similar too on either side of the passage, were *vertical* or nearly so; while every other wall-joint both above and below was *rectangular* to the length of the passage, and therefore largely *inclined* to the vertical.

But these marks would not suit the year 2170 B.C.; they were too high up towards A (their position is shown at M; they are not vertical, but that is a detail). But a little below them, "there is a more unique marking still; something it was, more retiring, more difficult to discover, and yet commending itself still more when

discovered, though not having the slightest approach to either letter of language or form of drawing, and certainly not to any species of idolatry." I should imagine *not*, seeing that this notable mark was "a line, nothing more, ruled on the stone, from top to bottom of the passage wall, at right angles to its floor—such a line as might be ruled with a blunt steel instrument." But then it was ruled very, very straight. Besides, there was a line on each side, and they "*seemed to be pretty accurately opposite each other.*" And with the varying estimates for the possible position of A and B and of the dates of the dispersion and exodus, we are able to get rid of the apparent vagueness in the "three or four hundred years" before mentioned. This, indeed, is the greatest triumph yet achieved in this line by the pyramidalists. At one page, Professor Smyth tells us the date 2170 B.C. must be three or four hundred inches from A, and four pages later he tells us he was "appalled" to find the eastern mark giving forth the year 2170⁵, and the western 2170⁴ pyramid inches,—in other words, the position of these lines determinable within the tenth of an inch!

This very wonderful coincidence, which appalled Professor Smyth, delighted Mr. Casey. "It satisfies me," he wrote, "and fills me with thankfulness and joy"; "while I," says Professor Smyth, with touching innocence, "never expecting to have measured so closely as that, along either side of those lengthy, dark, and sloping pyramid passages (where the measuring rods, if not tightly held by hand to the floor, have a knack of slipping away and shooting down to the bottom), cannot understand how such apparently close agreement came about, and know that it was not my desert." But anyone who has read what Professor Smyth has written about and found in the corner sockets, and has seen those rough holes, can very well understand how such apparently close agreement comes about, and know that the credit, positive or negative, is altogether his.

It may seem incredible that such absurdities as these should be believed in by persons higher in intelligence than those who believe in the promises of gipsies and Zadkiels. Absolutely the only measure available in the inquiry is. that of the distance B C—for B A can be taken with its epoch A anywhere we please, and C D, the Christian Dispensation, is marked off in time (according to this ridiculous theory) only at C. And C B, this only distance, does *not* agree within several feet with the period to which it is made to correspond. But if all the measured distances agreed within an inch or two with what the theory requires, and if events correspond-

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ing to the close of the Christian Dispensation should occur within a year or two, what but a rather odd set of coincidences could any reasonable being find in such relations? Who, one would say, could picture an almighty and all-wise God acting so ridiculous a part as the pyramidalists assign to Deity—suffering thousands of lives to be expended in a building meant to hide away knowledge of no earthly use to anyone, in order to give weight to predictions not to be discovered till long after all but one of the events referred to in them had occurred? And this, too, when so many simple and infinitely more impressive ways of carrying such foreknowledge to man were open to Him, without cruelty to the poor subjects of Cheops, and without all the other miseries associated with the erection of this stupendous building.

Truly, those who form such ideas of the ways and works of God seek to make Him “after their own image,”—mystical, short-sighted, and unreasonable.

RICHARD A. PROCTOR.

THE BIRDS IN POETRY, FROM CHAUCER TO WORDSWORTH.

IN dealing with individual birds, fowls particular, the poets are at some disadvantage. The subject possesses all the characteristics which Emerson, Hazlitt, and other essayists aver a poet's subject should *not* possess. Its very particularity condemns it. No free, heraldic treatment is possible. All the margins are too punctually defined, and most of its details so well known to the world at large, that a poet's digressions from the received importraiture appear to many to be simple errors of ignorance. But poets wear large cloaks; and however specious their apparent innocence of facts, it is impossible to say how much knowledge they may not really be hiding.

Where's the poet? show him, show him,
Muses nine, that I may know him.
'Tis the man who with a man
Is an equal, be he king
Or poorest of the beggar clan,
Or any wondrous thing
That may be 'twixt ape and Plato;
'Tis the man who, with a bird,
Wren or eagle, finds his way to
All its instincts.

For, as Rogers asks, "What is not visible to a poet's eye?" If, therefore, in neglecting this or that point in any particular bird's economy, a poet should seem deficient in that observation or spirit of inquiry by which, Faber tells us,

The bonds of sympathy are drawn more close
Between the inferior creatures and the heart,
Whether it be birds upon the spray

or anything else, he cannot generously be charged with any universal want of sympathy with Nature. Crabbe, for instance, was deplorably deficient in his acquaintance with vultures, but no poet knew more about turkeys than he did. Errors and omissions, trivial in themselves, may of course gather bulk and importance by all trending in one direction; but as regards each individually, it should be remembered by the prosaic that poets are given to "headstrong allegories,"

and that, after all, circumscribed subjects are not fit for poets. Elephants may, if they like, pick up pins, but they derogate from their dignity in doing so.

But in dealing with birds general the poets have a more appropriate theme than when concerning themselves over birds particular. "The eagle pinion" of the muse can sweep in more open sky, and her "eagle eye" cover at a glance more spacious provinces. The feathered tribes therefore pass in review before the poets not only "each after his kind," but massed "by their tribes"—

As when the total kind
Of birds, in orderly array, on wing,
Came summoned over Eden, to receive
Their names of Adam ;

and, indeed, the poets even exceed the liberal provision of nature, for they have—

Besides, some vocalists *without a name.*

Describing the fifth day's work of the Creation, Milton, surveying group by group the "fowl that fly above the earth in the open firmament of heaven," presents in an admirable series of passages the eyrie-building birds of prey, the birds of passage, the little songsters of the woodland, the birds of the streams, and the gallinaceous fowls, individualising each by a prominent member of the order, the eagle, "the prudent crane," "the solemn nightingale," the swan, that—

With archèd neck,
Between her white wings mantling proudly, rows
Her state with oary feet ;
And the other, whose gay train
Adorns him, coloured with the florid hue
Of rainbows and of starry eyes.

But after Milton—

Who follows Homer takes the field too late !—

we find only Grahame, Eliza Cook, Mrs. Hemans, and Montgomery using the birds in mass, the last with a sympathy for nature that is noteworthy, for it is very seldom indeed, except in Shelley, that the poets show any recognition of the great symphonies of nature :—

Voices wild
And harsh, yet in accordance with the waves
Upon the beach, the winds in caverns moaning,
Or winds and waves abroad upon the water.

And again—

Screams
Discordant—yet there was no discord there,
But tempered harmony ; all tones combining,
In the rich confluence of ten thousand tongues,
To tell of joy and to inspire it.

To the above, however, should be added Fenton and Wyatt, each of whom gives the bird-world, as a whole, a place in his verse, the former treading in Milton's track with curious punctuality,—

The tow'ring eagles to the realms of light
By their strong pounces claim a regal right.
The swan, contented with an humbler fate,
Low on the fishy river rows in state ;
Gay starry plumes thy length of train bedeck,
And the green emerald twinkles on thy neck ;
But the poor nightingale in mean attire
Is made chief warbler of the woodland choir ;

while Wyatt strikes out an original classification for himself—eagles, owls and the phoenix :—

Some fowls there be that have so perfect sight
Against the sun their eyes for to defend ;
And some, because the light does them offend,
Never appear but in the dark or night ;
Others rejoice to see the fire so bright,
And even to play in it, as they pretend,
But find contrary of it that they intend.

But there is one great "order" of birds which is the poet's own creation—for it is not found in nature, and it recurs far too often—namely, "the birds obscene." What these were, very many have actually specified—owls, ravens, choughs, cormorants, *bats*, jackdaws, vultures, "night-ravens," "night-crows," "night-hawks," "death-birds," "whistlers," and shrikes. The catalogue is a very curious one from several points of view, but we are not concerned at present with individual species. To give an illustration of the poet's partiality for this bird as a poetical image, a few quotations will suffice :—

The birds obscene that croak and jar,
And snuff the carnage from afar.
Mansions once their own, now loathsome haunts
Of birds obscene.
Birds obscene loud screaming fly,
Clang their black wings, and shriek along the sky.
Birds obscene that nightly flocked to taste
With hollow screeches fled the dire repast.
Hollows carved for snakes
And birds obscene.

But to turn to another aspect of the same idea, the "ominous" rather than the "obscene" :—

A shriek
Flew up through that long avenue of light,
Fleety as some dark ominous bird of night
Across the sun, and soon was out of sight.

Birds of death their fatal dirges sing.

Help me, ye banefull byrds ! whose shrieking sound
Is signe of drery death.

Let not the skriech-owls, nor the storkes,
Nor the night-raven that still deadly yels,
Nor damned ghosts, called up with mighty spells,
Nor griesly vultures, make us once afeard ;
Ne let th' unpleasant quyre of frogs still croking
Make us wish them choking.¹

The birds of ill presage
The lucklesse chance foretold
By doomfull noise.

Birds of ill omen hovered in the air,
And by their cries bade us for graves prepare.

These together—and there are a hundred more—form a very striking series ; but “the bird obscene” does not, and could not, exist in nature, and the poets’ thoughts are therefore radically unpoetical.

Of the Song of birds it is needless to say there are endless encomiums, but the following phrases comprise all the more general aspects in which “the pleasant clamour” of these minnesingers presented itself to the poets :—

“The plummy race” (*Akenside*), “the plummy people” (*Thomson*), “plummy tribes” (*Grahame*), “plummy songsters” (*Savage*), “feathered tribe” (*Wilson*), “feathered choir” (*Gay, Watts, Akenside, &c.*), “feathered minstrels” (*Clare*), “feathered people of the boughs” (*Mackay*), “winged dwellers on the leas” (*Grahame*), “winged foresters” (*Cunningham*), “commoners of air” (*Burns*), “free guests of earth and sky” (*Hemans*), “tenants of the sky,” “light tenants of the barren air” (*Thomson*), “who pay their quit-rent with a song” (*Greene*), “happy tenants of the shade” (*Shelley*), “the wanderers of heaven” (*Thomson*), “tribes of the air” (*Hemans*), “the host of birds” (*Dryden*), “tuneful choir” (*Crabbe*), “woodland choir” (*Grahame*), “poets of the vernal groves” (*Armstrong*), “summer birds” (*Cowper*), “companions of the spring” (*Dryden*).

None of the passages in which these occur are of sufficient beauty or significance to quote here ; and, indeed, except for Byron and Shelley, the true place in nature of the song of birds might never have been fixed. Cowper, it is true, carefully affects a pleasure in “*even the boding owl,*” but qualifies his timid appreciation by saying —

Yet heard in scenes where peace for ever reigns,
And only there, please highly for their sake.

¹ This descent from fancy to fact is unutterably delightful.

in simple brown. This, however, is only another but a striking instance of the poetical fallacy, that because *a* is *x*, therefore non-*a* must be non-*x*. If their white cat is a good mouser, they vow every black one is lazy, good-for-nothing, in league with the mice, a mouse itself, a rat, a wilderness of rodents, every possible kind of vermin, hell-upon-earth, the DEVIL.

The worst passage, perhaps, in which the various beauties of birds' plumage are summed up is that in Cowper—though even it derives a reflection of excellence from plagiarism :—

The birds put off their every hue
To dress a room for Montague.
The peacock sends his heavenly dyes,
His rainbows and his starry eyes ;
The pheasant, plumes which round unfold
His mantling neck with downy gold.
The cock, his arched tail's azure show
And, river-blanch'd, the swan his snow.
All tribes beside of Indian name
That glossy shine or vivid flame.

But Thomson, twinged, it may be, by remorse for the injuries he has inflicted in his verse upon the feathered folk, commends them all alike—"ghastly owls," "obscene daws," and "ravenous cormorants"—to the care of the same watchful Providence. The kindly intention of the paraphrase may perhaps be held to condone its inaccuracy, and the piety of it to excuse an otherwise unwarrantable extension of our Saviour's meaning to the birds of wintry climates.

See the light tenants of the barren air,
To them nor stores nor granaries belong,
Nought but the woodland and the pleasing song ;
Yet your kind heavenly Father bends his eye
On the least wing that flits along the sky ;
To Him they sing when Spring renews the plain,
To Him they cry in winter's pinching reign.
Nor is their music nor their plaint in vain ;
He hears the gay and the distressful call,
And with unsparing bounty fills them all.

Such, then, is the sum of the poets' references to the broadest aspects of the bird-world—the large place they fill in nature, their universal diffusion, the multitude of their varieties, and their enchanting diversity, their song, which is the very voice and spirit of the country side, and their beauty, the wonder of man in all ages. These are undoubtedly the "broadest" aspects of the bird-world, but they do not engage the fancy of the poets—as will be seen from their

references to them, which are inadequate both in number and tone. The poets fail somehow to recognise the full dignity that attaches to the individuality of "the birds," as one of the nine units of the scheme of Nature, or to remember that it took the very same creative effort to produce God's birds as was required to produce God's men.

They prefer to consider them as incidental features of man's Day and Night, or "secondary qualities" of Spring, Summer, Autumn, and Winter, as affecting man joyously, ominously, or devotionally. Now, if the poets would consider that Day and Night were created for the birds, a whole "evening and morning" before man made his spectral appearance on the earth, and that they were *not* merely devised as a Providential arrangement for the convenience of the human race, and if they would consider further that "*the Seasons*," as the inhabitants of England impertinently call the changes of the year, do not exist except in our own conceit (and Thomson's rhyme), that only a fraction of the globe understands the meaning of their "seasons," and that "the birds" are altogether independent of them, they would perhaps confess that they are themselves out of harmony with Nature. The birds of the world are not dependents on our poor summer, nor is our summer to be credited with their appearance amongst us. The birds come to us because it is winter elsewhere. Summer and birds are coincident gifts of Nature. The former come to us because they find out that the latter has already come. But if in any year we were to have a wintry June, July, and August, we should have to do without both "summer" and birds. They are a great and splendid gift in themselves, and in no way connected with the sprouting of English barley or the budding of English hawthorns. The barley may sprout, and the hawthorns bud, and "Spring" be here, as much as they like, but a change of temperature in Asia and in Africa is necessary before the birds will go to them. The nightingale does not come to see English roses blow. It has merely left Egypt and Asia Minor because the weather *there* was disagreeable. The changes of climate and the contemporary migrations of birds are two devices of Nature, which hang together without any appreciation of the circumstances or conveniences of Great Britain. The English rotation of crops does not affect the precession of the equinoxes. You will not stay the frost by sowing your spring wheat. It is feeble, therefore, and subtra-human to speak of one great phenomenon of Nature, ruled by laws that shake the whole globe, as being *a feature* of another phenomenon of Nature which only affects the knuckle end of Europe. Man is no doubt the best, even though he is the junior, of the animals; but it would take

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something more comprehensible than the "Almanach de Gotha" to tell us of the principalities, and powers, and peoples of the world with which man has nothing to do. We overrate ourselves, and the poets are largely answerable for the vanity. Milton alone reverently equalises the morning of man and the awakening of birds—

Sweet is the breath of morn, her rising sweet
With charms of earliest birds.

There is no offensive obtrusion of the human into the scene; and how exquisitely simple the lines are! But the cock and the lark have made the morning so completely their own in poetry that there is hardly a reference to be found to the generality of bird-dom.

And Phoebus gins to shew his glorious hed ;
Hark ! how the chearfull birds do chaunt theyr laies,
And caroll of love's praise.
The merry larkc her mattins sings aloft,
The thrush replyes ; the mavis descant playes ;
The ousell shrills ; the ruddock warbles soft ;
So goodly all agree, with sweet consent
To this daye's meriment.

And then comes noon, with its "torpor-shedding ray," when "the crows that stalk anear begin to trail for heat their glossy wings";

And where the hawthorn branches o'er the pool
A little bird, forsaking song and nest,
Flutters on dripping twigs his limbs to cool,
And splashes in the stream his burning breast.

And so on, to "the silence of the dewy hour,"

Oh Hesperus, thou bringest all good things,
To the young bird the parent's brooding wings.

It is to Byron again that we are indebted for this isolated touch of nature, and again to Shelley for the lovely evening lines, when "the birds are on the branches dreaming," or "asleep beneath the moon." For all the rest, the poets are attracted by the pretty fiction that the nest is "home."

Surrey thought the birds of a family came home to sleep at night by their parents' side :

fly up to the air,
Where then they sing in order fair,
And tell in song full merrily
How they have slept full quietly
That night, about their mother's sides.

Barry Cornwall :

Oh, the night brings sleep
To the green woods deep,
To the bird of the wood its nest.

Thomson speaks of the birds "retiring to their *homes*"; Shakespeare "to their nests"; and Milton has

• Fowls in their clay nests warm couched.

Now, there is no poetry added to the image by these errors. They represent, indeed, the fatally-frequent effort of writers to see *humanity* in animals. In prose this is disagreeable enough to those who have an instinctive sympathy with Nature; but in poetry there is the aggravating fact added that the verse actually suffers a loss of beauty by such efforts. How much more pleasing, for instance, is Byron's thought, already quoted, or Shelley's truthful lines. Surely this picture of the sweet confidence of little birds "on the branches dreaming," in the kindness of night and in protecting darkness; going to sleep almost, one might think, where weariness overtook them in their song—or, at any rate, settling down side by side on the first leafy chamber they found untenanted, "beneath the moon"—is far more engaging than the other of birds going back at nightfall to a house, and, so to speak, locking the front door and raking out the parlour fire.

But just as the lark and cock monopolise the morning, so the nightingale and owl monopolise the night, and, except for the "obscene" creatures of the poet's fancy, no others can find room to fly. These, alas! make the sweet night very hideous, as they clang

Through wild expanses of the midnight sky

Her spectres wan and birds of boding cry,
He gives to range the dreary sky.

• • • • •
a shriek

Flew up through that long avenue of light
Fleetly as some dark ominous bird of night,
Across the sun, and soon was out of sight.

This perpetual tendency to people night with terrors is very interesting, but, in professed teachers of men, to be regretted. The world gains nothing by prejudices. Day and night in the poets are individualised by "the cheerful lark" and "the ghastly owl." Yet night—"raven-night" or "owlet-night"—is a time of rest, of "halcyon sleep," and security to the birds, while the owl is beautiful in itself, and admirable in its service of man.

In the morning, before man is up, the nation of birds has awaked, and is gone forth and occupies the whole land. There might be no men on the earth at all for the self-sufficiency of our feathered fellow-beings! And, again, night—how welcome and beneficent it

is to the birds ! But for the protection of darkness while they slept, nine-tenths of the bird-world would be rapidly exterminated. In spring, again, occurs the miracle of the arrival of birds from abroad ; but it forms no feature of the poets' season. In summer the birds are all busy nesting and hatching their eggs ; yet the poets think of them apparently only as amusing themselves in the sunshine among the flowers. These cannot be called trivialities ; for in each case the poets have missed the very essence and spirit of the situation. It may be a poetical idea to say that the skylark awakens men and calls them up to their labours ; but it is not nearly so poetical as the fact that it does nothing of the sort. If any one was ever awakened by a skylark, he must have slept out all night on a haystack ; and if the skylark were told that it awakened men, it would probably give up singing altogether. It would much rather men would keep in bed, or all go into their graves together. It does not care about anybody but skylarks—and hawks.

It may also be poetical to say that night is disagreeable, and that birds fill it with horrors ; but the truth is far more poetical, that night never comes too soon, and that the birds that make it horrible do not exist.

"The seasons"—Phillips delightfully calls them "the cuckoo seasons," and Shelley, with equal grace, "the swallow seasons"—have each their appropriate bird : the cuckoo of spring, the swallow of summer, the partridge of autumn, and the robin of winter.

What poet has not sung the praises of spring ? The greatest have not : for neither Spenser, Milton, Keats, nor Shelley has written a single ode or sonnet to it ; but it has proved too easy a subject for lesser men to resist. Yet, what is there to quote from all that has been written of "the numbered melodies of spring," and "the parted birds, companions of the spring !" Perhaps the most pleasing aspect (in this connection) of the poet's spring,

When birds sit like bridegrooms all paired on the spray,
is that it is the "love-month" of "the plummy choir."¹

The birds sing love on every spray,
Love melts the universal lay ;
Elegies of love make vocal every spray.
Birds from woodbine bowers and jasmine grove
Chant their glad nuptials and unenvied love.

Little feathered songsters of the air
In woodlands tuneful woo and fondly pair.

¹ Could anything be less pleasing than this phrase ? Yet it is a common one in poetry.

For, though in a very modified degree, there is a certain sense of concord between all classes, which brings out "the bird unit" of nature, with something approaching to a defined "individuality." Otherwise it is merged both in phrase and application in the human, the result being often absurdity. Thus :

This was taught me by the dove,
To die—and know no second love ;
This lesson yet hath man to learn,
Taught by the thing he dares to spurn !
The bird that sings within the brake,
The swan that swims upon the lake,
One mate, and one alone, will take.

Now, fidelity on principle to the memory of a beloved deceased has no place in nature, not even in human nature, much less in bird nature. It is an accepted fact of natural history that if the male bird of a wild pair be killed during the nesting season, the widow finds a new mate ; and the cruel experiment has actually been tried, with the result of a bird losing five mates in succession, and completing her complement of eggs and hatching her brood only by a sixth marriage. Individual instances of a noble constancy, where other circumstances allowed of its indulgence, are of course abundantly on record, and in the East the abominable rite of suttee—although in most cases forced upon the woman by violence and the self-interest of relatives—might be accepted in part as a sacrifice to the fidelity idea. But men and women cannot inflict perpetual bereavement upon themselves, and still less die of a lost love, without opposing nature. In the bird world, such opposition to nature is even more impracticable. The stupidity of instinct alone prevents it. In captivity, birds have often pined to death for the loss of a mate, but quite as often for the loss of a companion or friend of another species, a cat or dog or human being. Indeed, the strongest attachments of the animal world are unnatural ones, namely to man, and the ties of bird love have nothing in common with our own ; and attempts to find a sentimental analogy must inevitably be useless.

But summer is pre-eminently the bird season, and the poets often employ the feathered choir with exquisite grace and tenderness to heighten the charms of June.

They have left their nests on the forest bough,
Their homes of delight they need not now,
And the young and the old they wander out
And traverse the green world round about,
And hark ! at the top of their leafy hall
How one to the other in love they call.

"Come up, come up," they seem to say,
"Where the topmost twigs of the hedges stray,
"Come up, come up," for the world is fair,
Where the merry leaves dance in the summer air,
And the birds below give back the cry,
"We're coming, we're coming, to the branches high."
How pleasant the life of a bird must be
Living in love on a leafy tree!
And away through the air what joy to go
And to look on the green bright world below!

Bird life at this season is apparently "all beer and skittles," and "the summer birds pursuing gilded flies" (*Cowper*), and "the singing of the summer birds among the flowers" (*Shelley*), appear to comprise in the poet's mind the whole duty of "the light tenants of the barren air" (*Thomson*) during the months of June, July, and August. That they are really almost incredibly industrious for a large portion of the time is overlooked, and hardly a dozen references could be found to that summer miracle of every year—the nest-building of birds—or to the exquisite fact of all our woodlands and hedgerows and meadows being studded with little nursery nooks; the shrubs in the copse, the mossy banks, and the sedges down by the river being all instinct for a while with the busiest, brightest emotions of life. Keats was in the secrets of the birds:

Summer has come and spoken
Full soothingly to every nested finch;

and again,

As swift
As birds on wing to breast its eggs again,
And patient as a hen-bird;

and what a delicious measure of distance, too, is his

About a young bird's flutter from the wood.

Gilbert White, too, has a delightful passage on a summer's evening,

When day declining sheds a silver gleam,
What time the may-fly haunts the pool or stream,
When the still owl skims round the grassy mead,
What time the tim'rous hare limps forth to feed,
Then be the time to steal adown the vale,
And listen to the vagrant cuckoo's tale;
To hear the clamorous curlew call his mate,
Or the soft quail his tender pain relate;
To see the swallow sweep the darkling plain,
Belated, to support her infant train;
To mark the swift in rapid giddy ring
Dash round the steeple.

And the same theme gives us in Clare a pleasant glimpse of night-fall in July:

Cooing sits the lonely dove
 Calling home her absent love :
 With "kirchup ! kirchup !" among wheats
 Partridge distant partridge greets,
 Beckoning hints to those that roam,
 That guide the squandered covey home ;
 Swallows check their winding flight,
 And twittering round the chimney 'light ;
 Round the pond the martins flirt,
 Their snowy breasts bedaubed with dirt ;
 While the mason 'neath the slates,
 Each mortar-bearing mate awaits :
 By art untaught, each labouring spouse
 Curious daubs his hanging house ;
 Bats flit by in hood and cowl,
 And through the barn-hole peeps the owl.

But there is nothing, virtually, to assure us that the story of a bird's life interested any other poets. They are ready enough to sing of the myths about birds : that the kingfisher calms the ocean, and the eagle grasps Jove's thunder-bolt ; that the turtle is an inconsolable widow, and the nightingale ever-mindful of Tereus : and scattered up and down in verse, these versions of the old-world fancies read delightfully. But collected together into pitiless juxtaposition, they seem only dry bones after all, worn-out fictions. There is no tenderness in them, no appreciation of the true beauty of the parables of Nature. To make the kingfisher a sea-bird, mistake eagles for vultures, be ignorant of the annual migration of turtle-doves, and to attribute the song of the nightingale to the hen-bird, are only specific errors of natural history, which may seem trivial enough, but, logically, an induction is only justified from "a sufficient collocation of instances" ; and these can only be obtained by the aggregation of trivialities. And yet they are not trivial either. For in the nightingale's case, for instance, nine-tenths of the poets hang all their sympathy with the bird on the fact of her sex. And if that sex is wrong, the condolence becomes absurd. Or take the next case, of the turtle-dove, a summer visitor only, habitually described as lamenting her dead "stock-dove" or "ring-dove" (which are resident British species and do not breed with turtle-doves), and as such consoled with, while all the time the bird has just come from Syria, where it hatched a brood of young ones three months ago, and now, mated to another spouse, is again a happy mother of another couplet. Or take the next instance, the eagle,

the idol bird of the poets. How often by misapprehension of Holy Writ, or mistranslation of the classics, or by want of reflection as to the *locale* of traditions, is this bird glorified, where the vulture, the abomination of the poets, and an object of loathing to them, ought to be receiving their homage instead! And so on with a score of others. These collocated form a sufficient basis for the induction that the poets perverted Nature for their purposes instead of, as has been so often claimed for them, and claimed by themselves, truly interpreting Nature. When they come to speak of birds generally instead of individual birds, this want of sympathy is not, of course, so conspicuous; but apart from the meagre recognition given to this very prominent and beautiful feature of rural life and the all-pervading presence of birds, it will have been seen that in each of these larger divisions of the subject—day and night, spring and summer—the central fact of the situation has received very scanty or very warped notice.

Next, Autumn, with "its damp and chilling air," when "the year is overgrown," and "summer, like a bird, hath flown,"

Where the glossy finches chatter
Up and down, up and down;
Where the chaffinch idly sitteth
With her mate upon the sheaves,
And the wistful robin flitteth
Over beds of yellow leaves.

for

Winter cold is coming on,
No more calls the cuckoo;
No more doth the music gush
From the silver-throated thrush;
No more now "at evening pale"
Singeth sad the nightingale,
Nor the blackbird on the lawn,
Nor the lark at dewy dawn.
The wild rose, Fancy, dieth;
The sweet bird, Memory, flieth,
And leaveth me alone.

These are tender lines and worthy of poetry, but, when we consider the immense range of English poets, they scarcely form a sufficient recognition of the great mystery of the autumnal emigration of our summer's visitors. There are very few like it in all nature, when we consider the distances which the birds, many of them the most feeble-winged of fowls, traverse in their journey, the punctuality with which they arrive and depart, or the instinct that guides their flight to the same spots year after year. In his admirable book

"Our Summer Migrants," Mr. Harting writes: "There is something almost mysterious in the way in which numbers of these small and delicately-formed birds are found scattered in one day over a parish where on the previous day not one was to be seen; and the manner of their arrival is scarcely more remarkable than the regularity with which they annually make their appearance. That most of them reach this country after long and protracted flights, crossing the Mediterranean, the Bay of Biscay, and the English Channel, is an undoubted fact; but how few of those who notice them in this country know where they come from, why they come, what they find here to live upon, how, when, and where they go for the winter!"

It is very difficult to determine how far the poets were cognisant of this great natural phenomenon. Of individual birds, the movements of snipe and woodcock—most of the poets were well informed about our game birds—were known, and the migration of the swallows, of course, no secret. But, though the poets knew the cuckoo was the herald of spring, they do not seem to have known it was only "a summer visitor," as they speak of its being waked from "a winter sleep;" and, considering how fully the nightingale comes under notice, it seems more than probable, from the absence of references to the fact, that the poets were in ignorance of its being but a temporary guest. Several poets, for instance, while comparing British birds with foreign, say they would not give "our" nightingale for all those songless birds of gaudy plumage—innocent of the fact that the nightingale itself is only a loan from abroad, and part of a much larger world than the British Isles. For instance—

Let other feathers vaunt the dyes of deepest rainbow flush,
Give me *Old England's nightingale.*

and again—

Nor envy we the gaudy robes they wear,
While Philomel *is ours.*

The turtle-dove, again, is one of the most frequently occurring birds in poetry, yet the poets thought it remained with us in winter, while they go out of their way to make "the hawk"—a bird they knew little of, except in falconry—"find perpetual summer and a change of skies." The fieldfare is mentioned by one poet as a winter visitor, but another makes it breed in Scotland. Four or five others refer to migration generally—

The birds of passage transmigrating come,
Unnumbered colonies of foreign wing,
At Nature's summons,

The birds that bring summer and fly when 'tis o'er,
Voluptuous elegance, the lovely child
Of ease and opulence that never comes
But, like a bird of summer, to attend
The brightest sunshine of a glorious state.

But it is not less remarkable that a poet, enumerating the impressions of autumn upon his mind, should omit the reference to the great fact of bird emigration, of which the copses and hedgerows are all so silently eloquent, than that, speaking of his own favourite birds—telling us not only all they do (and don't) and all they think about—he should forget to deplore their approaching departure.

Last of all in the bird-cycle is winter, when

Of various plume and chirp, the flocking birds
Alight on hedge or bush ;

Bare ruined choirs where late the sweet birds sang ;

and where,

late concealed,
Their nests now hang apparent to the view ;

and what

more dreary cold
Than a forsaken bird's nest filled with snow!

This last line—"a forsaken bird's nest filled with snow"—epitomises in a line all the year's history—the happy industry of spring, the summer flight of birds, the autumn fall of the leaves, and then winter with a handful of snow. It is by far the most beautiful touch in any poem. Many poets write pathetically about the "starving," "shivering" birds, some writing from the life—

The birds sit chattering in the thorn ;
A' day they fare but sparsely ;

and some from fancy—

A widow bird sat mourning for her love
Upon a wintry bough,
The frozen wind crept on above,
The frozen stream below ;

but all alike writing with a gentle sense of condolence and compassion. This is sympathy of course, but it is not the "sympathy" that makes men poets ; it only shows them to be men.

PHIL. ROBINSON.

*NOTES OF AN ISTRIAN JOURNEY.**I.—THE "BEPPI."*

ON a clear day in March, the faint blue outline of the Istrian coast, rather suggested than discerned from the campanile of Saint Mark, looked tempting enough to waken the spirit of spring wandering. The country is unguide-booked as yet, and comparatively unknown. But Venice has always been intimately connected with the Istrian peninsula; it was one of her earliest conquests. And though the custom-house now excludes the famous Istrian wine, Venice yet owes no small debt to Istria for the beautiful stone her artists used so well. The question was, how to get there. The Austrian-Lloyd steamer, that lay off the point of the Dogana, did not look tempting; and, besides, that would take one to Trieste, and not to the Istrian coast proper. A sailing-boat was clearly the right carriage. While revolving this point, the captain of the *Beppi*, an old friend of my friend Antonio, offered us a berth, or rather half a berth apiece, on board his boat that trades between Venice and the Istrian coast. We were to sail that night at two o'clock with the ebbing tide.

"Paron" Piero was as tough and hearty an old salt as you could meet with on the coast of Argyle. A Pelestrinotto by birth—for hardly a single Venetian is engaged in this coasting trade, and the masters and crews all hail from Burano, Pelestrina, or Chioggia—Piero had served under Austria, and loved the name of Emperor; he insisted on announcing the birthday of the King of Italy, which we kept at sea, as "la nascita del nostro Imperador." He had fought, been wounded, smuggled, and finally settled down to this trade of carrying wood. A man with a quick temper, a warm heart, and a flow of things to say that left him often high and dry for words, so that most of his sentences ended in "diavoli"—a compendious symbol for whatever might be wanting. The *Beppi* had cost him 25,000 francs, and he had owned her fifteen years, though she confessed to a greater age, with a tell-tale "1849," half worn out, upon her bows.

The *Beppi* was a boat of that build which, in these waters, is

called a "trabaccolo;" very similar to a Dutch galliot, with round, blunt bows, round ribs, and a flat bottom. She was about forty tons of burden, and carried two square sails on her main and mizen, and a jib. Her bulging prow had the two inevitable eyes cut and painted on either side of her nose; for in Venice, as in China, they ask you, How can a vessel see where she is going if she has no eyes? Inside, the *Beppi* contained a large hold in the centre for her cargo of fire-wood, and there an occasional cask of wine might be hidden from custom-house inquisitiveness. In the bows was a cabin for the crew, and in the stern another for the "Paron" and his son, which we were to share. The cabin of the *Beppi* was at most six feet square and five feet high. All round it was panelled in walnut-wood, roughly carved into arches and pilasters. At one side, close to the ladder of the hatchway, hung hams and smoked quarters of mutton, called "castradina," and dried fish. Under these, were three tubs—the one containing yellow maize-flour for polenta, another "paste," and the third peas and dried beans for soup; this, with a string of biscuits, formed the provision for the voyage. Next the hams came an array of hats and coats of all ages, to suit all weathers; then a little table and a stool; over the table the "Madonna della Seggiola." The opposite wall was entirely occupied by a large recess, in the middle of which hung an engraving of a very Correggiasque Madonna, the patroness of the boat, surrounded with a wreath of olive branches, maize, and oranges. Before the picture a lamp in a glass globe was kept constantly burning. The rest of this recess served as a store for ship's lamps, oil cans, one bottle of rum, and a small keg of wine. The two remaining sides of the cabin held two bunks, broad enough for two people to lie heads and tails. It did not take long to make one fond of the little cabin, in spite of its strange variety of smells.

The weather was fine when we went on board, about ten o'clock, hoping to get some sleep before starting. But March is the very month for the stormy Lord of Hadria to play some trick, and we felt, as an old Italian poet had sung, that "di doman' non c'è certezza."

II.—TWO IDLE DAYS.

Next morning the rain was dripping steadily on the deck. "That son of a dog, the scirocco," as the "Paron" called it, had played us the trick we dreaded, and the weather had fairly broken. The regular patter of the reefs against the sails showed that the *Beppi* was anchored, off fort Alberoni, just at the mouth of the Malamocco

but his favourite was certainly "corpo di Diana di Des." The crew were a little curious as to the presence of a stranger ; after some discussion, however, he was summed up and settled, to every body's satisfaction, as "uno di quei che vanno contemplando il mondo."

These Pelestrinotti are passionately fond of their home ; and the mere sight of it, when they cannot reach it, is enough to send them into a frenzy. Yet here lay the *Beppi*, idle and in sight of Pelestrina. "Acà, acà !" they kept on grumbling and muttering between their mouthfuls of polenta. And "Paron" Piero saw that he would have to let them go. Yet when they do get home they have no occupation. They lie in Homeric idleness before the fire, drinking coffee and smoking, while each one rambles along upon the lines of his own endless yarn, to which none of the others pays the smallest heed. "Acà, acà !" they all shouted when dinner was done ; and home they went and left us to look after the *Beppi* by ourselves. On board the afternoon stole lazily by. Antonio, squatted in front of the fire that was cooking our supper, blew at it through a long cane pipe, like an Indian charming snakes. Then towards evening the wind changed. The scirocco still thundered on the outside walls. The breeze freshened ; the mists lifted and drove away from the sunset, leaving the Euganean hills purple and distinct across the green expanses of the windy lagoon. To seaward the heavy clouds lay piled, and warmed to rose in the sunset ; while, far away, Venice sprang up clear and coldly grey upon the water.

Our sailors came on board again at midnight, and by dawn we were under way. The great blunt prows of the *Beppi* began to surge through the swell. Though the wind was fair, there was still a considerable sea ; and the fog had settled down over everything once more, so that two minutes after passing the end of the mole there was nothing to be seen from the moist decks of the trabaccolo but a hand's-breadth of cold grey rolling sea. A feeling of desolation began to lay its hand on one ; a sense of having bidden adieu to everything. And now, out of the grey cloud in front of us, came the first note of a fog horn ; melancholy and weird it sounded, and seemed to pervade the mist, nor was the ear sure of the quarter whence it came. Then another ; and this time clearly on our weather bow. We answer. There is a pause. Then suddenly, and with awful rapidity, a huge black mass looms out of the mist and seems to tower towards us—the prows of a steamer lost in the fog and seeking the port. There is an instant of confusion and contradictory shouts, and, above all, the "Paron's" louder and authoritative voice : then the huge mass fades silently away, blotted

out as rapidly as it emerged, and the mournful note of its steam siren dies slowly down the wind. A faint gleam of watery sunshine glimmers for an instant on the oily rollers; the gloom and the mist settle down once more. Even the breeze fails; and the *Beppi* begins to sway wearily from side to side. We commend ourselves to the powers of patience; while the sailors commence a long expostulation with the wind.

"*Supia, boja!*" says one, addressing the fog, throwing his words languidly overboard. "*Fiol d'un can!*" cries another. "*Xè porca, xè stà bava,*" cries the steersman with a curious air of conviction; and all the others answer in ghostly chorus from the bows, "*Sì, xè porca.*" This commination service being ended with no good results, one old sailor suggests that they have been on the wrong tack, and naturally the wind does not like being sworn at; so he begins, "*Ah! he is a noble, is the Maestro*" (the wind they wanted); "*he is a count, and very noble indeed, if it would only please him to come; and he will come if you give him time.*" And when once started, blessings flow as readily as curses. "*Dai, dai cara bava, cara, cara.*" But as little came of the one as of the other. The winds were deaf. And all day long there was nothing to be heard or seen but the long roll of the scirocco, the desolate chorus of the sailors, and the ceaseless patter of the reefs upon the empty sail.

III.—THE ISTRIAN COAST.

Midnight brought a breeze, and by sunrise the Istrian coast was in sight. The fog had cleared away; the *Beppi* ploughed a noble furrow in the sea, dipping almost to the eyes in the sapphire flood. To the north the Alps were clear, from Antelao past Monte Cavallo to the peaks of Carniola beyond Trieste; rosy snow against a pale blue sky, a splendid close to the great water avenue of the Adriatic. In front lay the Istrian shore, cloven by the small gulf of Quieto whither we were making. The whole coast was visible from the point of Salvore, with its lighthouse column, to Rovigno; line upon line of hills, each rising a little higher till they climbed to the crest of Monte Maggiore in the far background. The scene recalled the coast of Greece. There was the same beauty of long-drawn lines and delicate declensions—unobtrusive in curve, yet delicious to the eye that follows them. The prevailing tones along the coast were the grey green of the olive groves, the colder grey of the limestone rock, russet of the oak brakes that had not shed their last year's leaves, and

every now and then a flood of clearer colour from a cluster of fruit trees that were coming into bloom. As the *Beppi* drew nearer, the little villages that cap each height grew more and more distinct, began to take shape, and their campaniles shot up from their midst. Highest and clearest of all stood Buje, called "the spy of Istria," for it overlooks the whole land.

At Quieto the *Beppi* was to lie four days to ship her cargo of faggots, and this was the time at our disposal for seeing the Istrian coast. So, after packing a knapsack, and to a chorus of "buon divertimentos" from the crew, we set out to "contemplate the world." Parenzo is the nearest town to Quieto, and the walk there was most delicious in the spring. The way lies over rolling downs covered with brushwood almost as thick and as odoriferous as the Corsican macquis. A guide is absolutely necessary to avoid being lost in the bush. The whole of this limestone country was breathing after a bounteous rain. The flowers seemed to burst their buds as we looked at them—violet, crocus, hellebore, aromatic shrubs, and fruit-tree blossom—all the chorus of a southern spring. The air was laden with intoxicating perfume; the lizards rustled through the undergrowth. The olive trees, hoary and arrowy as always, waved and shimmered across a glittering sea. The climate of Istria is much warmer than that of the corresponding shores of Italy; and Cassiodorus made no mistake when he praised its voluptuous and delicious airs, and compared it to Baiaæ with no Avernus near at hand. The laughing sea, the olives, the lentisk, and the limestone down recalled the setting of some Theocritean idyl. And most fittingly the ancient ensign of Istria is the goat. The country is Greek in character; but the towns recall another and more recent master. At the entrance to Parenzo, Saint Mark's lion meets you face to face, grimly regardant from a round Venetian tower; and the narrow streets of the town are full of Venetian balconies and windows. The splendid basilica of Bishop Eufrasius is a monument of an earlier period still—the time of the Byzantine dominion; while the ruins of the great temple to Neptune and Mars remind one that Parenzo was once the Roman "municipium," Parentium—chief city in the colony Julia. Very splendid this temple must have looked standing boldly on the promontory that overhangs the northern of the two bays on which the city is built, its columned portico a landmark to sailors out at sea. Nothing remains of it now but the stylobate and a ruined capital or two. The buildings of Parenzo recall its history step by step, and the history of Parenzo is that of most of the Istrian coast towns. They were Roman colonies first, then governed by the Emperors of the

East. After the disturbances wrought by the Franks, Istria passed under the authority of elective governors who soon made themselves hereditary marquesses. From the marquesses it came to the hands of the Patriarch of Aquileia, and finally fell to the possession of Venice.

IV.—POLA.

Pola, at the extreme end of the peninsula, has always been the chief town of Istria. Its position secures it this pre-eminence; it lies in the recess of a deep gulf—a land-locked sea, secure from storms—while behind, the country is barren and broken into gorges, with abrupt sides, cloven through the limestone rock. Tradition says that in this bay the people of the Colchian King found a resting-place after their wanderings, when the pursuit of Jason and his golden fleece had grown a hopeless quest. But the real history of Pola begins when it became a Roman colony in 181 B.C., and its connection with Rome is the feature most clearly stamped upon the town, even to this day, in spite of Austrian barracks and arsenal, and "Franz Josef" in gold letters everywhere. Augustus dismantled the town for taking the Republican side in the wars that followed on the death of Julius Cæsar. But he rebuilt it again under the name of Pietas Julia, and dedicated to Rome and to Augustus the exquisite little temple which still stands perfect upon the Piazza. The most curious fact in Polan history is that this place witnessed the close of so many tragedies. Here Constantine the Great ordered the execution of his own son Crispus—that "chaste, too chaste Bellerophon" of Roman story, on the false accusation of the Empress Fausta; and here, too, Gallus, the brother of Julian, died at the bidding of Constantius. Under Justinian Pola was the capital of Istria and the seat of the governor, the master of the soldiery; and Belisarius used its harbour as a roadstead for his fleet. Later still—in 932 A.D.—when Istria made a temporary submission to Venice, the Bishop of Pola signed the treaty after the Marquess of Istria, proving that Pola still ranked highest among Istrian sees. This early treaty was a warning of the fate which lay in store for Pola. Her great rival on the other side of the Adriatic awakened her jealousy, and in the wars between Genoa and Venice Pola sided with the Genoese. This brought upon her the vengeance of the Venetians, and she passed into their power in 1331.

Few approaches are finer than the sea approach to Pola. The mouth of the bay is hidden by a promontory, crowned, as are all the neighbouring heights, by Austrian forts; and it is only as the vessel

rounds the point that the bay opens out, with Pola lying at its farther end. The attention is instantly caught by the great amphitheatre which stands at one side of the town ; its arches, tier upon tier, spring up in perfect symmetry from the level of the shore. No monument of ancient Rome conveys a more impressive sense of the solid splendour of Roman architecture than this arena at Pola—not the aqueducts of the Campagna nor the baths of Caracalla. Beside it the amphitheatre of Verona seems a dwarf ; the Colosseum is broken and ruined ; but here the whole outer wall is complete, and the Istrian stone looks as clean as the day it was cut. Inside, it is true, the galleries have all disappeared ; but one does not feel their absence on first seeing the arena from the water. With the evening sunlight glowing over the creamy whiteness of the stone, the whole pile looked like the work of some magician, not fashioned by the hand of man ; and it is easy to sympathise with the pride which the people of Pola feel in their treasure, and with their legend that it was built by the Fates in a single night. The Venetians at one time proposed to remove the amphitheatre bodily to the Lido at Venice ; but the undertaking proved too costly, and both Pola and the Lido were spared the misfortune.

Pola is rich in Roman remains ; but after the Temple of Augustus and the arena, only one other is worthy of being named. That is the little arch, miscalled the *Porta Aurata*. It was raised by the great Polan family of *Sergii*, in 99 A.D., and is an excellent piece of Roman work, with delicate traceries finely cut and keen, thanks to the qualities of the Istrian stone. Indeed, at Pola the traveller finds two things in which the country excels—the creamy Istrian stone and the ruby Istrian wine. *Francesco Redi* sent his *Bacchus* wandering through Tuscany ; but had he been a Venetian instead of a Tuscan, he would have changed the scene to the Istrian coast ; and there, rioting along the olive-shaded shores of some Istrian bay, the god of wine might well have found another *Ariadne* to translate to heaven.

After dinner, and a due tribute to the Istrian wine, it is pleasant to stroll along the quay and look down the long and winding estuary, ruffled into tiny waves by the land breeze. The Austrian navy lies drawn up in one long line of ships, their sterns close against the quay. At this time there chanced to be considerable stir, reminding us of the revolution that was going on at so short a distance from Pola. There were troop ships coming and going, and the song of the soldiers, borne over the water, sent us to sleep that night.

V.—POLA TO TRIESTE.

In Istria nothing is worse than the railway—the solitary railway which it possesses. It was built for the convenience of the arsenal at Pola ; and some doubt hangs over the hour at which a train will start, while no one knows at what hour it may arrive. One fact alone is certain, that the journey from Pola to Trieste by rail will not take less than thirteen hours. The traveller will probably choose to give up the railway for the little steamer, which performs the journey to Trieste in eight hours ; and the coast is so interesting that he will not regret his choice. Each of the little Istrian towns has a character of its own, and a history, if one cares to study it. But one feature they all have in common : they are built upon promontories boldly looking out to sea ; their campaniles serve as land-marks for miles around. Immediately after leaving the harbour of Pola the steamer passes the Brionian Islands, where Genoa defeated Venice at the opening of the war of Chioggia ; then on to Rovigno, a flourishing and active little place, with a tobacco factory and a good trade in wine. It sends both cigars and wine to Manchester, where they find a ready market, but, we may be sure, under other names than that of Rovigno. After Rovigno comes the little hill city of Orsera with its square castle, once the palace of the Bishop of Parenzo, in the days when he rivalled his brother of Pola in power. Then Città nuova stands out on its headland, a picturesque town with its old Venetian battlements and ivy-draped walls. The women of Città nuova wear a striking costume : quantities of pure white linen are wrapped about the breast and throat, and the same is thrown over the head ; but there it is starched, and stands out stiff like an exaggerated Normandy cap. For the antiquary there are the Roman inscriptions built into the walls of the basilica of Città nuova, and for the architect there is the basilica itself. After Città nuova the coast is flatter ; and there are only two small villages, Daila and Umago, to be seen. But in the spring the monotony of line and of colour is relieved by perfect fountains of living pink and white, thrown up by the orchard trees. When once the headland of Salvore is reached and the prow turned towards Trieste, the character of the coast changes. The bays become deeper and wider, the shores more precipitous ; the hills behind rise higher and more abruptly. There is Pirano, with its ancient walls perched high above the sea upon a tongue of land so thin that it must some day be eaten away by the waves that wash it on either side. Then comes Capo d'Istria, once Justinopolis, the See of Peter Paul

Vergerius, the Italian martyr for Protestantism, and also the home of the great Venetian family of Giustiniani, to whose lot has fallen, among other honours, the Scottish earldom of Newburgh. Then Trieste itself—its houses climbing high up the steep hillside; and farther to the left the white and solitary castle of Miramar, a paradise of gardens, but saddened always by the memory of its unhappy owner, Maximilian of Mexico; farther away still, and high over all, the towering pinnacles of the Dolomitic Alps.

VI.—HOME AGAIN.

Our leave of absence was up, and we had to seek our "Paron" once more in the harbour of Quieto. The *Beppi* lay deep in the water, with as much of her cargo above decks as below. The bundles of wood were all stowed with wonderful neatness, and reached a quarter of the way up the masts. They were planked over the top, forming what is called a "camito," a sort of raised deck on which one could walk, and from which the business of the ship was conducted. With such a "camito" as we had on board—fifty thousand faggots of oak—a reef had to be taken in in either sail. The breeze would not serve till evening; and there was nothing to be done but to turn into the little wine shop overlooking the harbour, and to drink through a series of parting glasses. The room was full of men who had been working at the loading of the *Beppi*—for this traffic in wood is the principal occupation of the natives of Quieto—wild and handsome looking fellows, playing and quarrelling over "mora."

The ethnology of the Istrians is so mixed and obscure, so many strains have had a share in making them, that it would be rash to say to what race these men belonged. They spoke Italian for the most part, reverting to Slavonic only when they took to their ferocious-looking knives, which each one carried in his belt. "Brutta gente; popolo selvatico," Paron Piero called them. But whether savage in their nature or no, they certainly possessed the savage's picturesqueness of gesture and of speech. "Long life to you, and I hope to see you again; but that may hardly be," said one, raising a glass of wine for me to take a sip out of it. "And why not?" "No, no! the mountains stay, but man must pass," he answered, with an indescribable movement that embraced the distant hills and the parting strangers.

But we were not to get off without doing justice to the rival inn and to each variety of wine which the place possessed. This little

MIRABEAU.

THE history of the entire world will be searched in vain for any parallel, in the dramatic nature of its events, or the momentous results of its working, to the French Revolution of 1789. The everyday events which crowd its lurid records, from the attack on the Bastille to the death of Robespierre, exceed, in their originality and horror, the sanguinary desires of Diderot and the reveries of Rousseau. That "truth is stranger than fiction," history has proved more than once, but the aphorism was never illustrated with greater force than by the Revolution of '89; and the pages of the most extravagant and imaginative novel that was ever written, have never depicted a more singular career than that of the man who was its soul and brain, till his death left it without that intellectual human control necessary for the direction of its gigantic force, which, when left without that indispensable guidance, lost its strength and power in anarchy.

Gabriel Honoré Riqueti de Mirabeau was born in 1749, at Mirabeau in Provence, where his ancestors—some of the oldest of the Provençal families—had lived from the thirteenth century. His father, the Marquis de Mirabeau, had taken some part in the politics of his day. He was known as the "Friend of Man," and was an interested if not very profound student of the science of Political Economy, on which he wrote a voluminous work. His illustrious son, the subject of this sketch, was not favoured by nature even from his birth. He was born with an unusually large head and a deformed foot. To render his physical disadvantages more apparent, when Mirabeau was three years old, small-pox left its ravages upon him in deep marks and seams, which of course increased his natural repulsiveness. Until his fifteenth year he was educated under the guidance of a tutor named Poisson, and he was then transferred to a military school at Paris, kept by the Abbé Choquart. More than one of his ancestors had shone in the career of arms, since they fought in the ranks of the Ghibelline faction in Italy, from whence they came, in the thirteenth century. His grandfather was a distinguished officer under the Duke de Vendome, and doubtless Mira-

beau's father expected, when sending him to a military school, that he would achieve success in a military career. At eighteen he entered the army as a volunteer, bearing no commission, but being attached to the regiment commanded by the Marquis de Lambert. After a year his father obtained a commission for him, but, with a harsh disregard to the necessities of his position, refused him any allowance whatever. The result of this was that he got into debt, and for the remainder of his unfortunate, though in the end brilliant career, he was never out of debt. At this period, and while still a subaltern in the regiment of de Lambert, there first appeared this failing in Mirabeau's character, which afterwards developed into unbounded profligacy, and which will ever stain his illustrious name and brilliant fame. He chanced to meet and, notwithstanding his repulsive appearance, to obtain the affections of a young lady, to whom the colonel of his regiment—de Lambert—was also devoted. This circumstance, of course, rendered his position intolerable, and he left his regiment and went to Paris. For leaving his regiment without permission he was tried before a military tribunal, and was sentenced to a short confinement. Unfortunately for Mirabeau, his father, "the Friend of Man," was cursed with a savage temper and cruel disposition. It is said by some biographers of Mirabeau, that the evil temper natural to his father was intensified in its irritability by the cold reception with which his work on Political Economy was received by the public. But Political Economy is dry reading, particularly when a treatise on such a subject runs through an extensive range of *eighty* volumes, which was the comprehensive character of the work written by the "Friend of Man." The title of this singular composition was "Ephémérides, or Leçons Economiques." The elder Mirabeau was a disciple of the theories of Doctor Quesnay, whose politico-economic philosophy was a kind of sentimental Benthamism, an attempt to reconcile the democratic theories of latter days with the ancient principles of feudalism. But whether the fault lay in the nature of the work, or in the prolixity or manner of its treatment, it was not a success, and the harsh temper of its author was not improved by that circumstance. He was enraged at this, the first, escapade of his son, and he gratified his temper by procuring a *lettre-de-cachet* for his imprisonment in the Isle of Rhé. Of all the barbarous relics of feudalistic tyranny conserved by the Bourbons, till their overthrow in '89, the *lettre-de-cachet* must be considered the most despotic. The annals of the Revolution in the days of "the Terror" display in every page the exercise of the most sanguinary tyranny; but when considered dispassionately, there is little difference,

In the degree of despotism, between the decree of the "Public Safety Committee" of the National Convention, which consigned to the guillotine, with a mockery of a trial, and the *lettre-de-cachet*, issued at the whisper of a court favourite, which decreed a life-long imprisonment to many an innocent victim, without the shadow of a trial. Whatever may be thought of the tyranny of the Revolution—and its sanguinary excesses could hardly have been exceeded—it should be remembered that its despotism was exercised in the open day, and its deeds have all been duly recorded during its brief saturnalia; but the tyranny exercised for centuries by the Bourbons, through means of such instruments as the *lettre-de-cachet*, will never be known. Perhaps, when the duration of that tyranny is considered, the number of the innocent victims who sank into premature graves, or passed from the cells of the Bastille to those of the lunatic asylum, may have exceeded the number of those consigned to a more speedy if more sanguinary end, by the Jacobins of '93. Mirabeau's father had sufficient influence at Paris to obtain as many *lettres-de-cachet* as he wished, and it is stated by one biographer of his illustrious son, that at one period he had all his relations in durance, under this unique instrument of despotism. Like most of the French *noblesse*, he lived dissolutely, and it happened that a Madame de Pailly, whom he kept as a mistress in Paris, had conceived a violent hatred to his son, the subject of this sketch, for it is recorded that it was she who influenced the father to act in the tyrannical manner he did against him. When the war with Corsica began in 1770, he was released from prison, and his father, disposed now to act more leniently, obtained for him a commission as lieutenant of infantry, but he did not distinguish himself in any remarkable degree in the campaign against Paoli. Probably there was little opportunity, or it may have been that he found that military life was not suited to his taste or aspirations. He appears to have resigned his commission shortly after the conquest of Corsica. In 1771 a famine raged in the province of Limousin, and he took an active part in alleviating the sufferings of the unfortunate peasantry. His father, the Marquis de Mirabeau, at this period was living in Paris, and was on intimate terms with the Prince de Condé, the Duc d'Orleans, and all the most influential men at the Court of Louis XV., and he introduced his son, in January 1772, to all the notable characters who formed the Court of the fifteenth Louis. Up to this time, of course, he had given no indication of the marvellous genius that lay dormant within him, hardly known even to himself, and he was simply noticed on his introduction at the Court for his extreme ugliness.

In this same year, 1772, occurred that important event—his marriage, which indirectly led to a most disastrous change in his circumstances. The lady to whom he was wedded was Marie-Emilie de Covet, daughter of the Marquis de Marignan; but she does not appear to have brought any dowry, although her father was reputed to be possessed of great wealth. However, despite of this fact and the knowledge that his own very limited income was not at all likely to be increased by his father, he kept an extravagant establishment at Aix for some time after his marriage, with the result, of course, of increasing his pecuniary difficulties. He was soon obliged to break up his house at Aix, and he retired with his wife to the old château of Mirabeau. But his evil fortune pursued him even here. In improving the old estate, he got more deeply into the hands of his creditors, till the clamour of their demands at last reached the ears of his father in Paris. The Marquis, instead of approving of his son's attempt to improve the old estate, and trying to aid him out of his difficulties, with characteristic violence of temper applied for another *lettre-de-cachet*, whereupon he was confined to the town of Manosque. While in this obscure provincial town, under the depressing influence of poverty and sickness, a son, Victor, was born; and here he composed his "Essay on Despotism." This was his second work; for, while in Corsica, he had written a history of that island, but it was a composition of little note. The "Essay on Despotism" was the first political work he wrote. The name pretty clearly indicates the nature of the work. It is a composition which is characterised by glowing eloquence, and contains many passages displaying that surpassing oratorical ability which a few years afterwards made him the foremost man in France. On the whole, however, the "Essay on Despotism" must be considered a rhapsodical and crude production. This is doubtless due to the fact that it was the first work of any importance which he had yet written. And again, the depressing and peculiar circumstances under which it was composed should not be overlooked when criticising the work.

About this period his father, for what reason none of his biographers state, had an interdict issued to compel him to keep within the boundaries of the town of Manosque. This circumstance was a trivial matter in itself, but in its consequence it had a most important influence on his career a brief time afterwards, by causing his removal to another prison, from which originated the series of events which brought him prominently into public life. Those events had their origin in this manner. While Mirabeau was con-

fined by the interdict to the limits of Manosque, he happened one day to find some correspondence between his wife and a Chevalier de Gassand. He challenged de Gassand to a duel, but he apologised. The chevalier was engaged to a daughter of the Marquis de Tourette, and the marriage was broken off in consequence of the correspondence which had been discovered by Mirabeau. Now, as de Gassand had apologised for his part in an intrigue which had been nipped before it had passed further than correspondence, Mirabeau was sufficiently generous to call on the old Marquis de Tourette to try and bring about amicable relations again with de Gassand, and he succeeded in the mission. However, the Marquis lived a considerable distance from Manosque, and, while returning to that town, he encountered on the road the Baron Villeneuve Moans. This baron had a short time previously grossly and publicly insulted the Marquise de Cabris, a sister of Mirabeau's. When he saw the baron, he lost all control over himself, and, jumping off his horse, he attacked him furiously with his riding-whip. The baron defended himself as best he could, and the combatants were separated. Of course, as this occurred on a public highway, it was commented on far and near, and it came to the ears of the government at Paris. As Mirabeau was clearly defying the authority of the interdict by leaving the limits of Manosque, and as the circumstances which impelled him to do so went for nothing at Paris, he was torn from his wife and child and conveyed to the dungeon of the castle of If, which stands on a barren rock in the Mediterranean. He was here treated with great severity by the governor of the prison, M. Dallégre, and, to render his position still more painful, his wife went to live at Aix, although, according to some biographers, she might have obtained permission to live with him at the castle of If.

Shortly after this he was removed to the castle of Joux. While in durance here, the coronation of Louis XVI. took place, and the governor of the prison of St. Joux allowed Count Mirabeau to join in the festivities at the adjacent town of Pontarlier. While mixing in the revels here he first met the Marquise de Monnier, a lady of handsome person and fascinating manners, at that time twenty-two years of age, who, four years before, in her eighteenth year, had been wedded to the Marquis de Monnier, a man who, on the nuptial day, had passed his seventy-first year. She was the daughter of a Count de Ruffey, and is known to those intimate with the biographies of Mirabeau as the lady who, under the name of "Sophie," played such an important part in shaping his strange career.

The governor of the prison of St. Joux at first treated Mirabeau with indulgent consideration, and allowed him to visit and receive visits from the de Monniers. The governor, M. St. Maur, was himself a devoted admirer of the Marquise, but as Mirabeau was remarkable for his extreme ugliness, he did not anticipate a rival in his prisoner.

There is nothing more contemptible in modern hero-worship than efforts to justify or gloss over the glaring offences which have publicly defied all moral law in the lives of great and distinguished men. But it cannot be overlooked, although it does not justify his conduct, that the circumstances which brought about his intrigue with the Marquise were of an exceptional nature. Mirabeau was naturally a man of strong passions, and being isolated even from the society of his wife, his friendship and admiration for the Marquise de Monnier rapidly ripened into a more tender intimacy, which was reciprocated. The governor of St. Joux, M. St. Maur, was exceedingly wrath when he discovered that in his captive he had a successful rival, and he thereupon proceeded to vent his rage by keeping his prisoner under close confinement, and completely isolating him from the society of the de Monniers. He also caused to be inflicted on him every petty annoyance that it was in his power to order through his attendants. He succeeded so well that Mirabeau felt his position unendurable, and he set about devising a plan of escape, and in this he was successful. His passion, however, for the Marquise de Monnier was only increased by separation, and he returned to Verrières in the hope of meeting her. However, he got little chance of seeing her, as he was arrested a short time after he entered Verrières. He was now removed from one prison to another, but at length some friend at Paris succeeded in influencing the Minister Malesherbes in his favour. The Minister sent him a hint to withdraw his parole, and a clear road was left open to him to escape to Geneva. He joyfully availed himself of the clemency of Malesherbes, and reached Geneva in a short time. His sojourn here, however, was brief, and, after various vicissitudes, he proceeded to Turin.

While staying in that city he received a letter from the Marquise expressing her attachment for him, and requesting an appointment at Verrières. There can be little doubt that Mirabeau's attachment for this lady had at least the one virtue of sincerity, for he immediately, at imminent risk to himself, returned to Verrières, and here the meeting so anxiously looked forward to, and for which both had so much, took place.

As every hour of Mirabeau's sojourn in Verrières was pregnant with danger to him, he was resolved to proceed at once to Amsterdam, intending to live there by his pen as a *littérateur*. For the Marquise there was no return from the step she had taken. She had given herself up completely to her passion for Mirabeau, and, ignoring duty and reputation, she accompanied him to Amsterdam. However inexcusable the conduct of Mirabeau must be considered, there was, at least, some palliation for the rash step taken by the Marquise. While yet a girl of eighteen, of handsome person and fascinating manners, she had been married to a man who had already passed "the scriptural span," and who, in fact, was old enough to be her grandfather.

For three months after his arrival, Mirabeau lived in the most straitened circumstances, as he was unable to obtain any literary work. However, after the lapse of that time, during which the Marquise de Monnier lived with him, he obtained some literary engagements. He wrote some pamphlets and translations, for which he obtained a remuneration sufficient to enable him to support himself and the Marquise in better circumstances than he had been able to do for the first three months of his sojourn in Amsterdam. His literary work included "Advice to the Hessians sold by their Prince to England," which was an appeal for the Americans, at that time in arms against the Home Government; also a "History of Travels;" also the first volume of a "History of England." A few years afterwards, when he was the most illustrious man in France and the most remarkable figure in Europe, he said that the brief period during which he lived as an author in Amsterdam was the only time of unalloyed pleasure he had known through his unfortunate career. But the period was indeed a brief one, for it was less than a year. It was known to the publishers in Amsterdam, that he was the author of the "Essay on Despotism," and so it came to the ears of Mirabeau's enemies in France that he was living in Amsterdam. The Marquis de Monnier, who was at this time nearly lapsing into dotage, wrote to the Marquise to return, and that he would forgive her.

As she did not comply with his request, the Marquis applied to the tribunal of Pontarlier to issue a decree, whereby he regained the settlements he had made on her and also the possession of her dowry for himself. The Marquis de Monnier, further influenced by the de Ruffeys, obtained a decree against Mirabeau for forty thousand livres, and also a decree something in the nature of a death-warrant, which would lie in abeyance, or might be enforced, at the

will of the King or his Minister. But, as he considered himself free from arrest in Amsterdam, and as he was hardly in possession of fifty livres, he laughed at their decrees. The Count de Ruffey used his influence at the French Court with such effect that an order was applied for by the representative of France at Rotterdam to the States for the arrest of Mirabeau, which was immediately granted. The Marquise was also arrested, and only prevented from taking poison by her lover on condition that, if she did not hear from him at a certain date, death should terminate her misery. The Marquise was transferred to a genteel house of correction at Paris, and Mirabeau was conveyed to the dungeons of Vincennes.

There are blemishes in the character of all great men, which fall like shadows over the lustre which otherwise enshrines their names, and Mirabeau was no exception to the roll of distinguished men whose name has come down to us lustrous by genius, though shadowed by faults. His profligacy, of course, forms the darkest stain on his name ; but, while confined in Vincennes, another trait was developed, which in its nature was altogether inconsistent with one of his stamp and character. This was his puerile impatience in imprisonment. For six months after his arrival in Vincennes, he continued to write ceaselessly to all his friends and relatives to use their influence for his liberation. But the influence of the de Ruffeys at Court was too powerful to be overcome by the efforts of his friends, and his father refused to do anything in his behalf, and so he ceased his appeals and turned his thoughts to authorship while in durance.

The position of a prisoner, even a State prisoner like Mirabeau, in the pre-Revolution days in France, was wretched to an extreme degree. The French prisons of the period, including of course the State prisons, were a disgrace to civilisation, and the dungeons of Vincennes were worse in every respect than even the cells of the Bastille. While confined here Mirabeau wrote a translation of "Tibullus," and a compilation from the "Decameron" of Boccaccio, and also a translation of another work of a highly immoral nature. It was while imprisoned here that he also wrote his most notable and widely-read work, which was entitled "Lettres-de-Cachet and State Prisons." It must be admitted that there were few better calculated to deal with this subject than its author. He had suffered deeply from the gross tyranny which this instrument of despotism was capable of exercising, and his wounded spirit found solace in the composition of a book which gave expression to the sufferings he was enduring. It was written in an ardent and impassioned

strain, the result of the arbitrary treatment he had been subjected to, and was in its nature the prelude to that marvellous eloquence which a few years afterwards stormed the strongholds of the feudalistic tyranny of the Bourbons, and resounded throughout all Europe.

At this time the Marquis, his father, who appears all through his life to have been a man of the most irascible and unhappy temper, had also in durance his wife and daughter, the sister of Mirabeau, under a *lettre-de-cachet*. For his son, Gabriel Honoré, he had throughout life the most bitter aversion, and he did not use his influence in the slightest degree to lessen the sufferings induced by his imprisonment in the noisome dungeons of Vincennes. He would not even allow him money for clothes, and as the State prisoners of the pre-Revolution days were obliged to clothe themselves, Mirabeau was reduced to a most wretched plight by lack of means, and in consequence of his neglected condition he suffered from ophthalmia, and his health began to fail rapidly. The food supplied to the State prisoners in Vincennes was of the coarsest kind, the confinement was rigorous, and between want of food, air, and clothes, he became seriously ill. A few faithful friends now used all their influence with his father to induce him to apply to the King for his release. He relented in his antagonism to his son, on ascertaining his dangerous condition, and used his influence at the Court for his release, which was granted in 1780, after three years and six months' confinement. He left Vincennes in feeble health, with an evil reputation on account of the public manner in which he had defied even the elastic laws of decorum observed in the reign of Louis XVI.; and he entered the world again with a disadvantage that appears to have constantly embittered his existence, namely, the want of money.

Shortly after this, a complete reconciliation with his father was brought about by some mutual friends.

As to the Marquise de Monnier—the lady for whom he had suffered so much, and who had sacrificed so much in her passion for Mirabeau—she was still confined in an asylum at Paris. Though not allowed liberty, she was permitted to see as many friends as called, and those interviews were not subject to any restrictions. Mirabeau had not yet met her since their separation at Amsterdam, but he had heard of the frequent visits of a M. de Rancourt; and the meeting looked forward to with such passionate desire on their separation at Amsterdam, began with accusations on his side and angry protests on hers, and so they parted in anger, never to meet again.

However, he could not forget all she had lost in her passion for him, and despite of his own deplorable circumstances he set about the reversal of the Pontarlier decree with a lion-hearted courage. The object of this was of course to restore to the Marquise her dowry and settlements. That part of the decree which dealt with the forfeiture of his own life he could have easily annulled by a *lettre-de-cassation*, a ministerial mandate which his family had sufficient influence to obtain at the Court, but he hazarded all on an appeal to law to save the Marquise de Monnier as well as himself, and he succeeded by his extraordinary ability. Her dowry and settlements were restored to her, subject to some slight restrictions, but she ended her life by a suicidal death, three years after, from the inhalation of charcoal fumes.

After the reversal of the Pontarlier decree, he lived for some time in Switzerland, and on his return he sought a reconciliation with his wife. She was herself willing to return, but her relations would not allow her. He instituted legal proceedings, and acted as his own counsel, although he had never studied law, and, contrary to the opinion of some of the most learned *avocats* in France, whom he had consulted, he gained his case, and a decree was issued ordering his wife, the Countess de Mirabeau, to return to him. But the De Marignans, his wife's relatives, appealed to a higher tribunal, and the decision given in his favour was reversed. However, the marvellous ability and transcendent eloquence with which he had conducted his case, secured for him a seat in the National Assembly, a few years after, as deputy for Aix. After this, Mirabeau never again met his wife.

When the Revolution burst in all its fury on France, she fled, and lived abroad for some time in poverty. In 1796 she married a Sardinian officer, named De Rocca, who lived but for a year after, and in 1800 she died in the same room in Paris in which her first illustrious husband had breathed his last.

On the conclusion of the trial at Aix, Mirabeau went to Paris, in which he remained but a brief period, and then proceeded to London. When leaving Paris he induced a young lady of the name of Von Haren, with whom he had become acquainted, to accompany him to London. She is known to those intimate with his biography as Madame de Nehra. He lived in London for eight months, during which time he was only able to derive a very precarious existence by literary labour. He commenced a work, much after the style of our modern encyclopædias, entitled "The Conservator," but the publishers of that day considered the project as

too gigantic. Like most men gifted with genius, he was in advance of his time in all his ideas; and, like all such men, he had to pay the penalty which the ignorance or indifference of the world imposes on those whose ideas anticipate the political or social state of a later period.

However, he returned to France, after an eight months' sojourn in London, having found it much more difficult to live as a *littérateur* in London than he did in Amsterdam.

On his return to Paris, he was sent on a mission to the Court of Berlin, and when he again returned to France he marked the gathering thunderclouds of the Revolution.

National bankruptcy was impending. Necker, and after him Calonne, could only stay it by constantly borrowing. Mirabeau, on his return to Paris, wrote some pamphlets on the financial difficulties of the kingdom, and their remedies, which immediately attracted public attention to the writer. In five years he was destined to be the greatest man in France, but at this period he was suffering from extreme pecuniary embarrassment. He was living thus almost in poverty, when the summons of the States-General sounded the tocsin of the Revolution. Mirabeau was returned as deputy for Aix as a representative of the people. In a short time, his Demosthenic eloquence, and capacity for dealing with the important subjects brought daily before the National Assembly, rendered him the most remarkable man in that illustrious assemblage. He took a leading part in the reforming legislation of the Assembly. His first famous speech related to the dismissal of the troops raised round Versailles by the Court party. His next oration was that on the appropriation of the Church property—that appertaining to the abbey lands and the monasteries. The condition of the Church in France, under the sixteenth Louis and his predecessor, was one which reflected no credit on the Catholic Church. But it cannot be said that the root of the evil lay in the Church. On the contrary, the evil was of external growth. The abbeys and bishoprics were richly endowed, and the profligate and rapacious *noblesse*, from the days of the thirteenth Louis, had, by the exercise of their influence and unjust privileges, used the Church as a mere profession of convenience, whereby they obtained dignities and vast incomes for their impoverished younger sons. The result of this system was the grave scandals that disgraced the Church in the pre-Revolution days, when bishops and cardinals, who were scions of the old *noblesse*, and whose lives were not saintly, revelled in their many thousands a year, while the village curés starved on less than a hundred. There can be no doubt that

one of the causes which hurried on the great political convulsion of '89 was the anomalous condition of the French Church.

To the unbiassed student of history, it appears evident that, towards the close of 1789, Mirabeau foresaw the sanguinary and anarchical character which the Revolution was assuming. He doubtless in his soul abhorred the despotism of a faction as much as he detested the tyranny of the crowned despot, and he foresaw clearly the sanguinary nature of the rule which would be instituted by Robespierre and the Jacobin party behind him if they succeeded in overturning the Monarchy. Mirabeau was not a Republican. He desired the overthrow of the feudal despotism that had existed under the old régime, and the establishment of a Constitutional Monarchy after the English type. Foreseeing what the Revolution was drifting to, he wished to save the Monarchy, and he had intimated this, towards the close of 1789, more than once to the King and the Court. But the Court faction were embittered against him by what he had already done in the cause of freedom; and Marie-Antoinette, who was but the tool of the imbecile *noblesse* of the Court, dissuaded the King from accepting the overtures of Mirabeau. In November 1789, he gave the Monarchy its last chance, by advocating that a Minister might retain his seat in the Assembly. But the King, blind to his danger, vacillated, and the Court party gave no support to this proposal of Mirabeau's, which, by placing power in his own hands, was meant to save the Monarchy and the Court from the doom which he saw impending. It was in vain, owing to the hatred and mistrust with which the Court regarded him. Thus passed away 1789 and the spring of 1790, in vacillation on the part of the King, and growing power and influence on the part of the sanguinary party who were led by Robespierre.

Meantime, Mirabeau's fame as an orator increased, until he was acknowledged as the most eloquent speaker France had ever produced. Unfortunately for his fame, he also became noted as the most profligate man in France, even in that period of *roués*.

In May 1790, the King and Queen became alive to the awful danger which surrounded them, and saw too late the error they had made in not accepting Mirabeau's aid before. A message was conveyed to Mirabeau that the Queen would meet him at Saint Cloud to arrange for the safety of the Monarchy, which the daily increasing violence of the Jacobin party threatened with destruction. In the shadow of the old castle of Henri Quatre took place the meeting between Marie-Antoinette and the man whom, up to that time, she had regarded as the most terrible assailant of the

Monarchy. There can be no doubt that he vowed to save the dynasty, as some of his biographers relate; but it was all too late. The unbounded profligacy into which he had launched in 1790, coupled with the superhuman labours of his public life, had already numbered his days. His health failed altogether in the spring of the ensuing year, and in April 1791, he expired in the house he had taken in the Rue St. Honoré. Almost his last words were, "I bear in my heart the dirge of the Monarchy, the ruins whereof will now be the prey of the factions." His death, like his life, had its dramatic surroundings. A notable characteristic of this extraordinary man through life was his love of flowers and music. When he was dying he requested that the room should be strewn with flowers, and that music should be played. And so on April 2, 1791, in his forty-second year, died Riqueti de Mirabeau, the veritable "Soul of the French Revolution."

One of the last labours he was engaged on in the Legislative Assembly was the preparation of a bill for the abolition of the law of primogeniture. When the fatal illness which terminated his existence overtook him, he confided the advocacy of this measure to his illustrious friend, Talleyrand, the ex-bishop of Autun. Some hours preceding his death, a priest who had been an intimate friend called upon him, and implored him to accept spiritual aid, but he refused, and with a faint smile remarked that "it was unnecessary, as the bishop," referring to Talleyrand, "had just left him."

With Mirabeau perished the "last hopes of the Monarchy." The tumultuous waves of the Revolution were fast surging round it, and none knew better than Mirabeau that his own death would ring the knell of the Monarchy. Hence his last thoughts were of the Bourbons, who had rejected his aid a year before, and who had appealed to him when the approach of death left him powerless to save them. He had been the master spirit of the Revolution, and he was the only man in France capable of controlling it. His last words, referring to the Monarchy—expressed with that eloquence which had distinguished him through life—proved to be a prophecy which was verified to the letter a brief period afterwards.

The announcement of Mirabeau's death was received with a wild outburst of grief through Paris and all France. Everywhere there was mourning for the Great Tribune, whose courage and intellect, at critical moments in the early days of the National Assembly, and whose eloquence all through that stormy period, had overthrown the feudal despotism of centuries—everywhere sincere regret, except by the small and daring faction led by Robespierre. There was secret

joy in the Jacobin clubs, for the death of Mirabeau gave them their first chance of furthering their sanguinary policy. He had divined their intentions, since one night about a year preceding his death, when he had gone down to the Jacobin club frequented by Robespierre and the thirty Jacobin deputies who formed his party. Mirabeau, in a heated discussion, called out—"Let my friends surround me!" but not one stood by him. From that time he clearly foresaw the length to which the Jacobin party were prepared to go, if they attained power in France.

The obsequies of Mirabeau were the most magnificent and impressive ever accorded to any man in France before. No king, warrior, or statesman had ever such a funeral. The streets for miles round the route of the funeral procession were crowded by mourners. Immediately following the bier walked the ministers of the king; then the delegation from the Assembly, comprising deputies of all political parties, and embracing in its ranks men who were the most illustrious in France; next followed the judges and other high legal dignitaries; after them, representatives of the municipality of Paris, and delegations from various provincial municipalities; and then followed all Paris, or as much of it as could reach the main route of the procession or crowd the by-streets. Infantry and cavalry representing the army were also present, and added to its impressiveness. The procession thus wound its way from the Rue St. Honoré to the church of St. Eustache, where the funeral orations were to be delivered. It was evening when the vast *cortège* reached this church, where impressive orations were delivered and religious rites performed, followed by the volleying of musketry. Thence the procession resumed its way to the church of St. G enevi ve, since known as the Panth on, a building dedicated to the great men of France, in the vaults of which it was arranged that the remains of Mirabeau should be interred. It was midnight when the procession arrived at the church of St. G enevi ve, amid the flickering of torches and the dirge-like music of the bands. And then, amid the booming of cannon and the mourning of all Paris, the coffin of Mirabeau was lowered into the vaults of the Panth on.

To the writer who can, through nearly the lapse of a century, calmly and dispassionately review the startling events of that stormy epoch, the name of him who typified the soul and force of the Revolution in its early days, before it degenerated into anarchy and delirium, can command nothing but sympathy and admiration—sympathy for the misfortunes of his ill-fated career; admiration for that eloquence and genius which, in the two years that closed his

ill-starred life, have given him imperishable renown. His misfortunes, to a great extent, were due to that profligacy which has so deeply shadowed his fame; but with reference to this failing, it might be well to refer briefly—as he has been depicted by some writers as a monster, and his failings grossly exaggerated and distorted—to the statement of one of his biographers, on the unimpeachable testimony of a doctor who was Mirabeau's medical adviser for years, that he was subject to an infirmity which occasionally left his passions almost uncontrollable.

As to the charge of cowardice which has been also levelled against him, it is hardly necessary to say anything. It is true that Mirabeau was frequently challenged to duels in a land where the laws daily permitted the use of the sword or pistol, and that he never fought. But it would be absurd to brand him as a coward because he would not fight with every Jacobin who might be instigated by Robespierre and "the Thirty" to pick a quarrel with him, or with those of a better class, but who were merely the paid agents of the insidious Orleans or the Court faction. He had given proofs of his courage years before by challenging de Gassand in a matter already referred to. And again, when some of his enemies had a slanderous report circulated, that he was intriguing with the Duc d'Orleans against the cause of the people and the Revolution, he rode down to the Assembly, despite the entreaties of all his friends, through a brutal mob, which threatened every moment to tear him asunder. When he reached the Assembly he disproved the charge.

That he used his best efforts, until illness struck him down, to save the Monarchy, cannot be denied. But he never advocated a republic; and the most sweeping legislative reformers could not have achieved more than Mirabeau had done, in the brief period since his first appearance in the States-General till illness removed him. From the night of his visit to the Jacobin Club, when they repudiated his leadership, he foresaw clearly what the Revolution would drift to, should any cause remove his own control. From that night it is evident that Mirabeau saw that two forces were at work, one or other of which was destined to direct the Revolution. The one force was his own genius and eloquence, which commanded the respect of the Assembly and the Court, and which was feared by "the Thirty;" the other force was "Robespierre and the Thirty," who formed the Jacobin party. Mirabeau was satisfied with the march of the Revolution, and with the magnificent results which had been attained, and he was anxious to conserve those newly-won liberties which had succeeded in changing a feudal despotism into a constitutional

monarchy. Had he lived, he would doubtless have known how to deal with the Jacobin party, and would, of course, have directed the course of the Revolution through quite a different channel from that which it took under the Jacobins.

To the superficial student of the French Revolution, it may appear strange that the Jacobin party, which formed a small minority, and which was not distinguished by genius or eloquence, should have so rapidly attained supreme control in France. But it is not difficult to discover the causes. In Mirabeau was typified and concentrated the intellectual power of the Revolution—the power which could reconstruct where it destroyed. On his death he left no successor. The Assembly split up into factions. The *noblesse* were furious at all that had been conceded; the writers, and orators, and “Moderates,” who formed the brilliant Girondist party, were distrusted by the *noblesse* and hated by the Jacobins; and the army was already corrupted by the soldiers who had returned with Lafayette from America, or by agents of “the Thirty.” The King could not trust the army—all was division and dissension, and so the Monarchy was doomed. In a number of factions where the military element is excluded, the most advanced generally overawe and rule the others; and so, when the Monarchy fell, the *noblesse* and Girondist factions were doomed in their turn by the Jacobins, which represented the only force in the Revolution on the death of Mirabeau.

J. A. BERMINGHAM.

A CALIFORNIAN FOREST.

IN no country in the world has Nature distributed her gift of beauty more unequally than in California. As you travel from one grand district to another, you pass through wide tracts of such weary ugliness as you never could expect to find so near the majestic crags and forests of the Sierra Nevada.

It must, however, be confessed that much of the dreary desolation is of man's creation, and marks the region where "placer," *i.e.* surface, gold-mining, has destroyed the whole face of the country, removing every particle of earth, and leaving only curiously skeletonised rocks; while streams, once clear and rippling, now continue to practise the lesson they have been taught, and only run red mud, indicating that somewhere along their course patient Chinamen or Indians are busily washing "the tailings," *i.e.* the refuse earth, seeking for such particles of gold as have escaped the more impetuous Anglo-Saxon.

A handful of such frugal toilers are the only symptoms of life to be seen near the dreary deserted mining towns, which (having sprung into being with mushroom speed, as one district or another found favour with the miners) are now abandoned to the slow work of decay. While the eye rests wearily on the long rows of wretched shanties or more pretentious houses—all wooden—a feeling of deeper regret may spring up for the once beautiful trees which, after growing through centuries in ever-increasing strength and grace, were doomed to perish for such use as this. This was the feeling which forced itself on my mind, when, after a long spell of delight in the forests of Mariposa, and amid the manifold attractions of the wonderful Yō Semité, I had to return to lower levels and travel for a couple of days across this dreary region of grilling heat and dust in order to reach the lovely forests of Calaveras.

I had been living in the Sierras since the early spring—now it was midsummer—and as we drove across a vast plain, which in April had been rich pasture-land, bright with gay blossoms, we could scarcely recognise any trace of vegetation, so thickly coated with dust was the sun-dried hay. Dust like the finest flour flying in choking clouds,

the road only to be distinguished as a broad track of deeper dust. No shadow anywhere, but overhead a fierce scintillating sun, blazing with sickening heat. Then we descended by a series of steep zig-zags into the gorge of the Stanislaus River, where the sun's vertical rays seemed concentrated, for the hot air blowing in our faces was like the blast from a furnace. At all these frightfully dangerous gradients, the drivers invariably whip up their teams of five or six horses, three abreast, and tear down just as fast as they can lay foot to ground. The roads are narrow, with only just room to pass another wheeled vehicle. There is no parapet—not even a fence, to mark the edge below which lies the steep descent of many hundred feet, to the dark chasm from which rises the tumultuous roar of unseen waters. A parapet would be considered an extravagance. It wouldn't pay!

Round these rapid curves and dizzy ledges the six-horse team and heavy coach rattled as cheerily as ever coach ran on the old Highland road, never relaxing pace, save when, at some particularly dangerous spot, we encountered heavily-laden waggons, drawn by six or eight pairs of mules. We met a mule train coming up the gorge as we descended, and watched breathlessly while the outer wheels grazed within six inches of the precipice, and then rattled on again. It was bad enough, even on an ordinary forest road, to meet a waggon-train of long heavy-wheeled timber carts, with one man to guide each team of eight or ten mules. He generally sits on one, and guides the others with a single rein, but chiefly by voice, addressing each by name; he puts on the drag by means of a rope which works an iron lever, and if the road is too narrow to pass he must pull up in the bush on one side—no easy task. We rushed full tilt down the break-neck descent, the coachman working the brake with his foot, and talking to his horses in the most calm matter-of-fact way, as if the apparent danger was not worth a thought (they do sometimes cause "an almighty smash," and when they do so, it is something for the survivors, if there are any, to remember).

When we had safely climbed up the other side of the furnace gorge, the driver, who had spent the two previous nights at "balls," became so overpowered with sleep that he could no longer keep his eyes open. Happily, the only other passenger proved equal to the occasion, and taking the ribbons, allowed the wearied driver to take possession of the inside and sleep in peace.

In the afternoon we changed coaches at another decaying mining town, and then commenced a long steady pull uphill, very hard on the horses. But the unfeeling human beings, whose faces were once

more turned towards the Sierras, rejoiced at every upward step. The road led on through a forest of ever-increasing beauty, till at length we reached the very perfection of forest glory, and knew that we were nearing Calaveras. As we ascended the air became bitterly cold, and probably the intense heat of the day made us more sensitive to the change. It was late at night ere we reached the clean cosy Cottage Hotel, where we were welcomed with true Californian cordiality.

The house stands on rising ground in the very heart of the most glorious forest, on the edge of perhaps the grandest existing grove of the Giant Sequoia, which Englishmen will so unreasonably persist in calling Wellingtonia, to the extreme, and most just, annoyance of the Americans, and more especially of the Californians, who alone can claim possession of these mighty trees, the monarchs of the Sierras. I suppose no other species exists, so limited in its distribution, as the Sequoia. These patriarchal brethren have apparently agreed to divide the land, for the one (the Redwood Sequoia Sempervirens) holds undivided sway in the low Coast Range which runs parallel with the shores of the Pacific. *There, and there only*, is it to be found.

On the other hand, the big trees (*Sequoia Gigantea*) make their home exclusively in the Sierra Nevada, and there only in a few clearly defined groves. As yet I believe that only eight groves have been discovered, all growing in rich vegetable mould, on a foundation of powdered granite. Of these the most northerly is Calaveras, and the most southerly is on the south fork of the Tule River. The others are the Stanislaus, the Merced and Crane Flat, the Mariposa, the Fresno, the King's and Kaweah Rivers, and the north fork of the Tule River. It is worthy of note that the most northerly groves are found at the lowest level, Calaveras being only 4,759 feet above the sea, while the Tule and Kaweah belts range over the Sierras at about 7,000 feet. The number of sequoias in the northern groves is reckoned to be as follows: Calaveras, 90; Stanislaus or South grove of Calaveras, 1,380; of over one foot in diameter—many of these are upwards of thirty in diameter; Mariposa, 600. The beautiful Fresno grove, some miles from Mariposa, has 1,200; Merced has 50; Tuolumne, 30. The southern belts have not yet been fully explored, but are apparently the most extensive.

I had visited the Mariposa grove while the winter snow still lay deep on the ground, and had gathered the strange Californian snow-flowers (*Sarcodes sanguinea*), which grow singly, somewhat resembling scarlet hyacinths, but rising straight up from the newly thawed earth, like tongues of vivid flame. Later I had passed through the

Tuolumne grove, where one grand old ruin, known as "The Dead Giant," had been so entirely hollowed by long use as a chimney, that the road-makers could not resist the temptation of completing the work of the camp fires, so they cut a great archway right through the further side of the poor dead stump, and led the road through it, so that now the high, crowded coach daily passes through the very heart of the great tree which may have been young in the days of Julius Cæsar.

Now I had reached the loveliest forest that dreams could picture, and the joyous summer added its treasures of delight to the ever-green pine and cedar shade. Here are yellow pines and sugar pines, silver firs and cedars, Douglas and Williamson spruces, and many another, all growing happily together, singly or in beautiful family groups. And scattered all through the grove are the majestic sequoias, like tall red towers, their summits lost to sight in the interlacing boughs of lower trees, which stand around like vassals guarding their chief. And herein these vassals do a kindly office, for it must be confessed that the very small amount of foliage which covers these huge stems appears altogether out of proportion, and irresistibly suggests irreverent comparison with the funny little Dutch trees in the Noah's Ark of our nurseries.

Hence one's first impressions of the Sequoia are apt to be unsatisfactory. I confess that my own were so. The very name of Giant Cedars recalled memories of blissful days in the Himalayan forests, where cedars meant stately Deodaras, more majestic than any Cedar of Lebanon, with wide-spreading arms outstretched over awful precipices, and layers of velvety-green foliage dotted with lovely cones.¹ So that at first it was hard to realise that these Californian cedars were altogether justified in concentrating all their growing power in one steady upward direction. Great towers of Babel they seemed to me, or (were I speaking to one familiar with old Delhi, and the mighty works of the great Mahommedan emperors) I should say that to me they chiefly recalled the Kootub Minar, that gigantic minaret of warm red sandstone which seems to cleave the heavens.

These cedar towers bear a thick soft coating of bark, of a rich golden red or warm sienna colour, so that when the light falls upon them they look like pillars of fire. They are deeply grooved with vertical indentations which give them a strong resemblance to fluted columns. The bark, which is about eighteen inches in thickness, is like soft plush, and so very porous that it is supposed to act as lungs for the great tree, whose supply of foliage appears wholly inadequate

¹ From the Hebrides to the Himalayas. C. F. Gordon Cumming.

for breathing purposes. These giants are scattered among thousands of other grand pines and cedars, with grey, white, red, or yellow stems, all faultlessly perpendicular, and from their drooping boughs hang long waving draperies of the loveliest bright yellow lichen, like embodied rays of sunlight. This lichen is a thing by itself for beauty. In no other land have I seen anything of the sort, and its effect in the forest is most fairylike.

There was one glade in the forest which, above all others, seemed to me suggestive of a glorious natural cathedral, the mighty stems forming long dreary aisles. At one glance I could count twenty of the huge red columns, which, seen in their gloom against the light, are of a dark morocco colour, like porphyry, while the lesser shafts of grey, red, and yellow grouped themselves like pillars of many-coloured marbles, grey granite and sienna. And the eastern light streaming through the silvery grey-green of the pines or the mellow golden-green of the hazel undergrowth, became subdued, just as it is in very old churches with greenish glass. It was altogether beautiful—solemn and still—not a sound to be heard save the chirruping of insects and a few low bird-notes—not a full chorus, but a subdued under-tone.

As regards the wonderful size of the Sequoia, that is a matter which does not at first fully come home to one. The fact is, that all the trees are so large, that one fails to realise the magnitude of the giants. All have increased in proportion. It requires a mental calculation to convince oneself that the transformation is something quite out of the common. It is only when you come to walk in and out of the hollow trees, and to circle round them, and take a constitutional by walking alongside of a fallen giant, or perhaps (if it has done duty as a chimney before it came to grief) by riding up inside the hollow for a considerable distance, that you begin to understand their size. You do so best when, standing on the ground beside a prostrate tree lying buried in a ditch of its own making, you look up at a red wall rising perhaps fifteen or twenty feet above your head, bulging outwards considerably, and extending in a straight line for three hundred feet along the ground, and tell yourself that it is only a tree! The owners of the beautiful grove near the Hotel have erected tall ladders to enable people to climb on to some of these heights and walk along the fallen trees as if on garden terraces. It sounds cockney, but it is decidedly pleasant to gain a view of the forest from an elevation of thirty feet, and it is not everyone who can scale the red rampart without the aid of the ladders.

If you choose to clamber along the upturned roots, you may find an airy seat some forty feet above the ground. This sounds

high, but on further consideration you begin to marvel how such extraordinarily small roots can ever have formed a fit pedestal for so ponderous a weight. They have literally no depth and a comparatively small spread, so that they have merely a superficial hold on the earth's surface. Yet this slight support has enabled these huge bodies to resist the wild storms of many centuries.

All the big trees of the district are concentrated in two groves, namely, the little forest gem of Calaveras, and a much larger belt known as the South Park Grove, on the Stanislaus River, about six miles farther.

In the Calaveras grove all the Sequoias lie within an area of fifty acres, over which space altogether about a hundred lie scattered singly or in groups. Of these, twenty attain a circumference of about eighty feet near the base, and one, which is distinguished as the Father of the Forest, is found to measure 110 feet round; it now lies prostrate, and has apparently done so for many a century, for the well-nigh imperishable wood is in part decayed, and long use as a chimney had burnt out its inside and destroyed its summit ere it fell. The portion that still remains is like a long mountain, and two large archways have been cut into the side of the said mountain, in order that those whose taste lies in that line may ride into the hollow trunk, and come out by the further opening. It is estimated that the tree, when perfect, must have been about 450 feet in height. Of the trees now standing, four exceed 300 feet in height, and one measures 325. About twenty-five are said to exceed 250 feet.

One can perhaps better realise what these sizes mean, by finding the amount of house-room to be obtained within a hollowed tree. Several, such as "Miner's Camp" and "Pioneer's Camp," have been used as temporary homes. In the latter, fifty persons can find sitting room; others are used for stabling horses.

Two grievous acts of sacrilege were perpetrated by certain Goths soon after the discovery of this forest sanctuary. Finding that no one would believe in the measurements of the monster trees, they resolved to convince sceptics, and fill their own pockets, by sacrificing two of the noblest trees, and distributing sections of wood and of bark to various parts of the world. To this end, one of the noblest trees was felled—an operation which kept five men hard at work for twenty-two days, boring through the tree with pump-augers. Even after the poor giant had been sawn in two, it refused to fall, and its murderers had to work for three days more driving in wedges on one side, till they succeeded in tilting it over, and great was the fall of it. Then they smoothed the poor stump at six feet from the ground,

removed its bark and built a pavilion over it, in which a party of thirty-two persons found room to dance—not a savage war-dance over a mighty conquered monarch, but commonplace quadrilles, with attendant musicians and spectators, all crowded into this novel ball-room. Its diameter is twenty-four feet, and its age, reckoned by the rings of actual growth, is found to be about 1,300 years.

More barbarous still was the fate of the venerable Mother of the Forest, who was stripped of her bark to the height of 116 feet from the base. It was removed in sections, each duly numbered, in order to be rebuilt and exhibited in various places; but a number of unbelieving sight-seers supposed the huge erection to be a fraud, made up of many trees. Finally it was taken to the Crystal Palace at Sydenham, where it was unfortunately destroyed in the great fire. Strange to say, though the poor tree was thus ruthlessly dealt with in the year 1858, she is not quite dead, though naked and miserable, a ghastly object, her sides still transfixed with wooden implements of torture, which once supported the scaffolding on which stood her tormentors.

There is just one other detail which savours unpleasantly of cockneyism, namely, that every sequoia in Calaveras grove has received a distinctive name, which in some cases is engraved on a granite tablet and inserted in the bark. I do not dislike such names as "Pride of the Forest," "The Beauty of the Forest," "The Sequoia Queen and her Maids of Honour;" nor do "Hercules," "The Twins," or "The Hermit," sound amiss. There is something distinctive in such names as "The Granite State," "Old Republican," or "Old Dominion," and no one can grudge the dedication of a special tree to Old Dowd, the discoverer of the grove, who was supposed to be romancing so freely that none of his comrades would accompany him to Calaveras, till he baited his trap with imaginary grizzly bears. But why every tree should be alike nicknamed in honour of minor mortals of exceedingly varied merit is a mystery to the mere lover of beautiful nature.

One of the loveliest groups, called "the Three Graces," seems to spring from one root; tapering symmetrically upwards, they tower side by side to a height of 290 feet, their united circumference being about 95 feet. The "Two Guardsmen" are each 300 feet in height, and respectively 65 and 70 feet in circumference. These stand sentinel at the entrance to this wonderful forest.

Less gemlike in its compactness, but more free from any trace of man's marring hand, is the South Grove, which is the largest Big Tree Colony which has been yet discovered, 1,300 sequoias of over one foot in diameter having been counted in a belt of forest about

three miles in length by two in width. To reach it from Calaveras we followed a beautiful but very steep trail, up high ridges and down into deep gorges, commanding ever-varying views, and at every turn became more deeply impressed by the indescribable grandeur of those glorious coniferous forests—the vast beautiful wilderness, where rarely a human ear catches the murmur of the lullabies which winds and rushing rivers sing ceaselessly to the mountains and pine forests. Tall green spires crown every ridge, and rise in clusters from the lower levels—grand trees of larch-like growth, middle-aged, hoary, dead—some lightning-stricken, standing ghastly and bleached—some lying prostrate, half buried in moss and veiled by a rich undergrowth of aspen, dwarf spruce, and cotton-wood.

We rode past tall sugar-pines so exquisite in their elegance that I could have lingered beside them for hours, but of course the one aim and object of our pilgrimage was to visit the biggest trees; and we certainly saw giants. I sketched one which measures 105 feet in circumference—at least, this is the accepted measurement. The fact is that the base of the Sequoia expands almost like a funnel; so, according as the measuring string is passed round a foot higher or lower, does the result vary. Ordinary mortals measure at about seven feet above the ground, being as high as they can reach. Scientific people do not care to measure below twelve feet from the ground, above which height the tree tapers very gradually to the summit.

Several of the grandest trees have been blown over, not recently, but in some terrific tempest long years ago. One of these is called "Goliath." In falling, it sank into the earth for a depth of fully four feet, and yet as I rode alongside of it, though I was on a very tall horse, my head did not reach half-way up the side of the stem. Someone measured it about 150 feet from the root and found that it was 45 feet in girth even there. So he could have cut out a second block of well-nigh imperishable wood 15 feet square by 120 feet long! Only think how many centuries it must have taken to grow.

We remarked with much wonder how very few young sequoias seem to be growing up, and I am told that throughout the northern forests the same thing has been observed, and that many of the old trees are childless. It is almost feared that in these groves the species is doomed to extinction.

In the southern belts, however, the young trees grow heartily everywhere, multitudes of seedlings and saplings springing up alike in rich moist meadows and on rocky ledges and moraines; so there, the danger of extinction lies not in natural causes, but in the ravages of sheep-feeders and lumberers, who not only cut the young timber,

but, when clearing the ground for fresh operations, burn the refuse, and so destroy thousands of seedlings.

Some years ago, the Californian Government enacted a law forbidding the cutting down of trees over sixteen feet in diameter ; but as no penalty attaches to burning these, or to cutting down all lesser ones, the law is practically worthless, and ruthless lumberers still set up their saw-mills on the edge of the sequoia belt, and convert all they can into timber. Not very long ago, five saw-mills reckoned that in the previous season they had cut over two million feet of Big Tree lumber ! If such devastation is allowed to go on unchecked, the extermination of the species will follow pretty closely on its discovery, and soon the glory of the primeval forest will be little more than a memory. Mercifully, the owners of saw-mills find that they cannot conveniently "handle" these monarchs, which are alike awkward to saw down and to cut up, so there is less danger of their being tempted to evade the law which protects the larger trees, consequently only the younger ones are thus ruthlessly destroyed.

The largest sequoia yet discovered is on King's River, about forty miles from Visalia. It is forty-four feet in diameter. *A hundred and thirty-two feet in circumference.* Wouldn't an English forester open his eyes pretty wide at such a giant as this ? The forest in which this patriarch reigns extends for about one hundred and fifty miles, having a general width of ten miles. It clothes the ridges which divide the Kaweah and King's Rivers and their tributaries, and includes the finest belt yet discovered of the great sequoia, the largest trees being generally found in the valleys where the soil is moist, and at a general elevation of from 6,000 to 7,000 feet above the sea-level.

To the traveller accustomed to forests of mixed timber, such as clothe the beautiful Himalayas so gloriously, one of the most striking features of these Californian forests is the fact that they are altogether coniferous, and the marvel is how so great variety can be obtained from pines, firs, spruces, cedars, and junipers, unmingled with any hardwood worth speaking of. These grow singly, or in families, lying in belts at varying altitudes, each species favouring some special level, so that an experienced mountaineer and forester can form a tolerable estimate of the height to which he has attained by noting the kinds of trees around him, and their condition.

Some, however, have a very wide range, and are found at almost every altitude. This is especially true of the Yellow Pine, also called the Silver Pine,¹ which is the Mark Tapley of the Sierras.

¹ *Pinus ponderosa.*

No matter how bare the rock ledge, or how unsheltered the spot—on the bleakest crags, 8,000 feet above the sea, it contrives to exist, and rears a brave ever-green head. Though dwarfed and stunted, it is always picturesque, throwing out gnarled and twisted boughs. Through long centuries these much-enduring trees have done ceaseless battle with adverse circumstances, struggling with the ungenial rock for a niggardly subsistence, and battered by the winds and tempests.

But while bravely making the best of difficulties, no tree more fully appreciates the good things of life, as shown by its luxuriant growth when living a cheery family life with its brethren in the forests, on good nutritious soil, and in an equable climate. Under these favourable circumstances it becomes almost as majestic as the *Williamsonii* or the *Lambertiana*. It flourishes at a very low elevation—less than 2,000 feet above the sea—but is to be seen in perfection in such sheltered valleys as the Yō Semité. It receives its name of Silver Pine because of the silvery gleam of its glossy needles, on which the sunbeams play in ten thousand shimmering points of light. Yet the name of Yellow Pine is more truly descriptive of the tree, whose needles are actually of a warm golden green, and its bark a reddish yellow. The latter is several inches thick, and is laid on in scales, like armour. It is generally pierced by innumerable holes, drilled by the diligent woodpecker, as store-houses for his winter supply of acorns. Its purplish-green cones are about four inches long, and grow in clusters among tassels of long firm needles, each six or eight inches in length. A full-grown yellow pine averages 200 feet in height and eighteen feet in circumference, occasionally attaining to twenty-five feet in girth. It shoots heavenward as straight as a mast, and alas! is greatly prized by the lumberers.

Whenever a yellow pine stands alone on good soil, and with room to expand, its boughs feather down to the ground most gracefully, but in general the lower part of the stem is bare, and only the upper half forms a green spire. Its boughs are so divided and subdivided as to form a bushy tree, therein greatly differing from a still more lovely tree, the Sugar-pine—whose graceful branches sweep in undivided lines for thirty or forty feet.¹ To me, this stately tree is by far the loveliest object in the forests. She is the true queen of the Sierras. Whatever claims to masculine beauty and grandeur any other trees may possess, she, at least, stands unrivalled in grace and loveliness. I never see one of those tall, smooth, tapering

¹ *Pinus Lambertiana.*

shafts, reaching up to the blue heaven, and thence outstretching its crown of long slender branches clothed in tender green, and expanding in faultless symmetrical curves, without receiving the same sort of impression as (alas! how rarely!) is derived from the presence of a gracious and lovely woman. Even the youngest sugar-pines are things of beauty—fair daughters of a noble house, and full of the promise of ever-increasing loveliness when (after a strictly well-regulated youth of some sixty years, during which they adhere to the conventional forms of graceful, lady-like, young sugar-pines) they may begin to strike out an independent line of their own, and in the course of three or four hundred years, when they have attained a height of about 200 feet, and a girth of from eighteen to twenty feet, may boldly venture to throw out free and irregular branches, forty or fifty feet in length, sweeping in most graceful curves.

Each branch is fringed with tassels of long fine needles, and from the tips of the slender, pensile boughs hang the most beautiful cones that exist in the whole pine kingdom—cones which are rarely less than fifteen, and often grow to eighteen, inches in length, averaging nine inches in circumference. When fully ripe the scales expand, and the cones are then fully fifteen inches in girth. They act as weights to draw down the tips of the branches. Their great size strikes one curiously, as compared with the small round cone of the Giant Sequoia. As the cones attain maturity, their delicate green changes to a rich purple hue, and then to a golden brown, which becomes yellowish as the opening scales reveal their inner sides, and long after the winged seeds have flown from their snug niches in the cone, these rich golden cones still cling to the boughs and mingle their mellow colouring with the green crop of the following year. But the sweet sunlit grass is all strewn with the great yellow cones which in former years have dropped to the ground, but seem in no hurry to decay. They ripen in September, when the seeds are carefully collected by men who have found them to be a profitable article of trade for the pine-growers of distant lands.

But the pine-growers of Britain are unable to supply the altitude most dear to the sugar-pine—ranging from 3,000 to 7,000 feet, and, moreover, many a generation will come and go, ere artificially reared trees can hope to approach the natural beauty of these free children of the mountain, some of which (with a circumference of about thirty-five feet) are supposed to have already braved six hundred winters, yet show no symptoms of decay, nor any reason why they should not survive six hundred more, if only

they can escape the ruthless saw of the lumberer, or the still more cruel axe of the shingle-splitter.

Unfortunately, the wood splits so readily that it finds especial favour with these men, to whom a tree represents only so many cubic feet of timber, and so the loveliest creations of nature are hewn down, solely to be reduced to shingles, for building and roofing the most abject of huts. But where this sad fate has been arrested, the majestic tree still reigns supreme—a queen without a rival. Its warm brown stem is generally studded with golden lichen, which also hangs in long beard-like fringes from every bough. And not only do the pine-needles fill the air with resinous fragrance, but the wood itself has a pleasant smell, chiefly perceptible, alas! when the woodcutter has sealed its doom.

The generous tree not only perfumes the clothes of the destroyer, but also gives him delicious white sugar, which, by many persons, is preferred to that of the sugar-maple. Whenever the tree is wounded either by fire or axe, there the sweet sap exudes, like the gum on our own cherry trees. Though naturally white, it so often flows from a wound charred by fire, that it is apt to assume a rich brown colour, like barley-sugar. Though pleasant to the taste, it cannot be eaten with impunity by all persons, being somewhat medicinal in its effects. It is curious that the bears, which have so keen a talent for scenting out honey and other sweet things, seem to avoid this natural sugar by instinct, and are never known to touch it. It is said to be useful as a cough lozenge, and is a remedy in lung disease.

Next in beauty to the sugar-pine ranks the Williamson Spruce.¹ It is not so luxuriant in growth as many others, rarely, if ever, exceeding 100 feet in height, and from four to five feet in diameter. Yet, while it possesses all the elegance and delicate curves of the sugar pine, it has strength to withstand the rudest storms, and grows best on frosty northern slopes, at an altitude of 6,000 to 8,000 feet, where the snow lies so deep in winter as altogether to bury it. For so gently does this yielding tree droop beneath the gradually increasing weight of the snow, that not only the boughs, but even the slender main stem, bend like a reed, till it forms a perfect arch, and, as the snow falls deeper and deeper, the whole grove is literally buried—not an indication of a tree-top is to be seen. Thus sheltered from the wintry blasts, this graceful spruce lies hidden, till the return of warm spring melts the frozen snows, and the long-prisoned boughs, elastic as before, spring back to their accustomed position, and the beautiful tree reappears as fresh and

¹ *Abies Williamsonii*.

as green as ever, having survived the long winter without the loss of one slender branchlet or one drooping cone. The cones are small, not more than two inches in length, and of a purple colour.

Very beautiful, too, is the Douglas Spruce,¹ which, like the sugar-pine, attains a height of 200 feet, and a circumference of from twenty to twenty-five feet. There are some beautiful specimens of this spruce in the Yō Semité Valley, and they looked their best in the early summer, when each spray was edged with a fringe of lovely fresh yellow-green needles, seeming as if the sunlight were flickering among its branches.

A rival beauty is the Incense Cedar,² with its rich brown bark, and warm golden-green foliage. The young trees are feathered to the ground, their lower branches drooping, those nearer the summit pointing heavenward—the whole forming a perfectly tapering cone of richest green. The older trees throw out great angular arms, from which the golden lichens hang in long weird festoons and streamers like rays of tangible sunlight. Such beautiful lichen—of the most brilliant chrome and lemon-green colour—I know nothing like it in any other country.

Two of the loveliest trees of the Sierra are those silver firs which botanists distinguish as the "lovely" and the "grand";³ but which to the Californians are simply Red-fir and White-fir, from the general colouring of their stem. Both species grow to a height of about 200 feet in tall beautifully tapering spires. Some even overtop their fellows by an additional forty or fifty feet, and the stems attain to a circumference of from fifteen to twenty feet. The white-fir bears greyish cones, about four inches in length, which it carries upright, whereas those of the red-fir are purplish and about six inches in length, and they adorn the upper and under side of the boughs with equal impartiality.

The average lifetime of these noble trees is estimated at from two hundred to two hundred and fifty years. Wherever they find a desirable situation and suitable soil on ancient moraines, there they flourish, forming lovely groups, even at a height of 7,000 or 8,000 feet above the sea. These, however, are but, as it were, children among the trees of the Sierras, some of which, such as the Mountain Pine,⁴ weather a thousand years, and attain their greatest perfection at an elevation of 10,000 feet.

Another hardy tree, which keeps watch and ward with these mountain sentinels on all the bleakest exposures, is the Red Cedar,⁵

¹ *Abies Douglasii*. ² *Libocedrus decurrens*. ³ *Picea amabilis* and *Picea grandis*.

⁴ *Pinus monticola*.

⁵ *Juniperus occidentalis*.

whose twisted, irregular boughs, bent and sometimes broken by the weight of snow and the fury of the winds, tell their story, as the rugged lines on an old weather-beaten face tell of the storms of life which have engraven them. These old-world trees are wonderfully picturesque. Many of them are merely huge shattered stumps, battered warriors, which have lost limb by limb, in many a hard-fought battle with wind and storm.

These gnarled old trees are to me the source of ceaseless wonder: they adorn the barest, coldest domes and slopes of hard granite—inhospitable ground, where it seems impossible that any vegetable or animal life should exist; yet here they have established themselves so firmly that not all the wild wintry tempests which for centuries have swept the Sierras have been able to dislodge them. They are the sturdiest and most enduring of trees, and their rich cool green foliage (rendered doubly valuable by its contrast with the rich cinnamon colour and deep red-browns of the stem and boughs and rugged bark) forms the only point of positive colour in the bleak cold granite world, where they, alone, represent the vegetable world, and where the merry little chip-munks, most saucy of the squirrel tribe, prove that animal life can maintain itself even in that hungry region, though what they can find to eat passes my comprehension, for these patriarchal trees do not waste their energies in the production of many cones.

Some pines bear cones which form an important item in the food of the wandering Indian tribes, but these grow far away.¹ The Fremontiana is found chiefly on the eastern foot ranges of the Sierras, in the districts where the Carson River and Mono-Lake Indians still dwell, and bears fruit abundantly, at an altitude of 8,000 feet. It is a stumpy little pine, rarely exceeding twenty feet in height, or forming a stem more than one foot in diameter. Its crooked irregular branches bear a very large crop of small cones, about two inches long, each containing several edible kernels about the size of a large nut, and pleasant to the taste. They are exceedingly nutritious, and are so abundant in certain districts that a diligent picker can gather about forty bushels in a season. Consequently it is a really valuable tree, and the Indians justly regard it as the food provided by the Great Father for their special use, and many a story of bloody revenge taken by the Red men against the aggressive Whites has been traced to the wanton destruction of these food-producing trees by the lumberers and settlers. This Nut Pine keeps its succulent kernels so securely imbedded in their hard outer

¹ *Pinus Sabiniana* and *Pinus Fremontiana*.

case that it requires the action of fire to force open the scales, within which they lie embedded.

The other pine which furnishes an edible nut is the Sabiniana or Digger Pine. It requires much greater heat than the Fremontiana, and consequently grows on the hot foot-hills at an altitude of from 500 to 4,000 feet. At first sight you scarcely recognise it as being a pine tree, so different is its growth from the ordinary stiffness of the family. Instead of all branches diverging from one straight main stem, perhaps 200 feet high, this little pine only attains a height of about fifty feet (which, however, is more than double the stature of its nut-bearing brother). It shoots upwards for about twelve or fifteen feet, and then divides into half a dozen branches, which grow in a loose irregular manner, generally, but not invariably, with an upward tendency. Thence droop the secondary boughs with pendent tassels of very long greyish-needles. They are often a foot in length, and form the lightest, airiest of foliage, casting little or no shade. From each bundle of needles hangs a cluster of beautiful cones which in autumn are of a rich chocolate colour. They grow to a length of about eight inches, and are thick in proportion. Both squirrels and bears climb the highest branches in search of these, well knowing what dainty morsels lie hidden within the armour-plated exterior of strong hooked scales. By diligent nibbling, even the little squirrels manage to extract the nuts, but the Indians simplify this labour by the use of fire. They climb the trees and beat off the cones, or (more reckless than the bears) cut off the boughs with their hatchets; then, collecting the cones, they roast them in the wood-ashes, till the protecting scales burst open, when they can pick out the nuts and crack their hard inner shells, at their leisure, as they lie round their camp-fires at night, or bask idly in the sunlight through the long summer day. It is dirty work, as you can imagine; but a little more or less misplaced matter, such as charcoal and resin, matters little in a filthy Indian camp.

To me the most uninteresting tree of the Sierras is the Tamarack Pine,¹ sometimes called the Two-leaved Pine, from the peculiar growth of its needles, which are set in long tassels, bearing clusters of small cones, which in the spring-time are of a rich crimson hue, an ornamental feather, which, however, does not compensate for the sparseness of the foliage. It is a small pine, compared with its neighbours—full-grown trees averaging fifty feet in height and seven in circumference. Each tree is a slim tapering spire, and a large grove affords little or no variety of form; only, where the trees grow

¹ *Pinus contorta.*

closer together in sheltered hollows, they assume an exceedingly slender character. The tamarack overspreads large districts in the higher ranges, flourishing at a height of 9,000 feet. Its presence appears to be favourable to the growth of succulent grasses, and the tamarack groves are dear to the shepherd, who therein finds sweetest pastures for his flocks.

They have the disadvantage, however, of being exceedingly liable to be swept by forest fires, owing to the large quantity of resin which drips all over the bark, so that when, in seasons of drought, a chance spark falls among the sundried cones and needles, and so runs along the ground to the foot of one of these resin-sprinkled trees, it straightway ignites, and, in a moment, the column of flame rushes up, only pausing, however, to consume the sap. For a few short seconds, the beautiful pyramid of rose-tinted flame envelopes the tree; then fades away, and passes on to enfold another and yet another in its deadly embrace. For though the fire runs on so swiftly that the trees are scarcely charred, and not a twig burnt, they die all the same, and, after a while, their bark peels off, and the poor naked bleached trees remain standing intact—a weird forest. In course of years the boughs drop off, and wind and storm gradually complete the work of destruction.

More provident with regard to fires is the little Hickory Pine,¹ so called by the miners on account of the hardness and white colour of its wood. It is only found in certain localities, on the lower hills, at an elevation of less than 3,000 feet. It is a graceful little tree, rarely exceeding forty feet in height and one foot in diameter. Its branches are curved and slender, and its grey needles grow so sparsely as to cast little shadow. Its peculiarity lies in the fact that its hard glossy cones, or burs, as they are called, grow in circles right up the main trunk and along the principal branches, instead of clustering on the lesser boughs.

Stranger still is the fact that these cones never drop off till the tree dies, but adhere to the parent stem, accumulating an ever-increasing store of ripe seed. Consequently no young trees are ever found near a flourishing grove; all the trees in one colony appear to be of the same age, which is attributed to the fact that, growing as they do on dry hill sides, clothed with inflammable scrub, and very liable to be swept by fire, the groves are periodically burnt, and, with them, all the cones borne by the trees throughout the whole course of their existence. Multitudes of these are merely charred, and the action of heat only bursts the hard scales, and leaves the seed free to sprout so soon as the ground cools and the rains moisten the soil.

¹ *Pinus tuberculata.*

Thus, phoenix-like, a new forest springs into being, so soon as the parent trees have been consumed.

Though all alike children of the Sierras, the last half-dozen trees I have mentioned are not included (at any rate, hold no prominent place) in the beautiful forest of Calaveras, of which we were speaking, and which is to me an abiding memory of delight.

But there is no use in attempting to paint such a place in words. All the thousand details that go to make it a scene of enchantment are indescribable. Each must imagine for himself the drowsy hum of bees and other insects—the flash of brilliant colour as a blue jay darts across the sunlight—the busy tapping of the scarlet-headed woodpecker—an occasional glimpse of a humming-bird, hovering for a few seconds, then vanishing as if by magic—a flight of butterflies, or a solitary heavy-winged moth—and, above all, the aromatic fragrance of pine and cypress and cedar, all mingling in the balmy health-giving breeze. These, and countless other delights, are all combined in the daily and hourly life of the happy few who find the will and the leisure to abide for a season in the beautiful forests of the Californian Alps.

C. F. GORDON CUMMING.

WALTHER VON DER VOGELWEIDE.

IT may be doubted whether there could be found, in the annals of any literature, a character more thoroughly typical of the age in which he lived than the old German Minnesinger Walther von der Vogelweide. Posterity has accepted the unanimous verdict of his contemporaries, which assigned him the first place amongst the minstrels of courtly love as the tenderest and most refined, as well as the most gifted and the most correct, of the tuneful and chivalrous brotherhood. In his charming love songs he lays before us a complete and striking picture of Minne-life in the highest phase of its development, and enables us to trace, in all their subtle details, the various forms of love which inspired the Minnesinger's verse.

But love is not the only source from which Walther draws his poetic inspiration. His deep and ardent patriotism reproduces in his verse the hopes and the fears, the despondency and the exultation with which he followed the varying fortunes of his country in its struggle for political freedom, and in its endeavours to shake off the papal power. It is more particularly this—the political—aspect of life that we purpose to develop in the following pages.

There was full scope for the enthusiasm as well of the patriot as of the poet in the events amongst which Walther's chequered life was thrown. His career began in the spring-tide of Minne-song. His youth and early training fell within the brilliant period of national glory under Frederick Barbarossa and Henry VI. at the close of the twelfth century. Whilst singing of May and Minne, amidst the delights of the Austrian Court, as the favourite of a happy nation, he formed his lofty ideal of German imperial power and world-wide sway. The accession of the powerful and ambitious Innocent III. to the papal throne marked the beginning of the minstrel's wanderings from court to court and from camp to camp. He was a witness of the stirring scenes in the mighty civil war which resulted in the ruin of the empire, in the wreck of the happiness and greatness of the German nation. In the evening of his life, when civil strife had subsided, another movement awakened his enthusiasm, and called him forth from the hearth for which he had so ardently longed in

the years of his wanderings, and which imperial liberality had at last given him. In accents of which age had not weakened the power, he called upon the German land to send forth its warriors for the deliverance of the Holy Places which had witnessed the birth, the miracles, and the death of the Redeemer. The remnant of his strength was devoted to the cause of the Cross, and the last scene of his eventful life closed with his pilgrimage to the Holy Land.

It is not possible to fix with absolute certainty the year of Walther's birth, but we know that it must fall within the decade from 1160 to 1170. Still greater uncertainty prevails as to the poet's birthplace. No fewer than nine districts lay claim to him, but the weight of evidence seems to be in favour of Tyrol. As regards the origin of the name which the poet bore, there can be but little doubt. In Old High German the word "fogilweida" signified, according to the glossaries, an "aviarium." The simplest and most reasonable supposition is, that either Walther's father, or one of his ancestors, was appointed to superintend an "aviarium," and that Vogelweide, from being the name of a preserve, became that of the family to whose care this preserve was entrusted.

It is generally allowed that Walther was of noble descent. He gives himself the title "Herr," which, in those days, was a knightly distinction, and his contemporaries also designate him as "Herr" Walther and "Herr" Vogelweide. This is notably the case with Wolfran, whose pride of birth was such that he declares his noble rank to be dearer to him than his fame in song, and who, most assuredly, would have been the last to bestow the distinctive epithet of nobility on a mere commoner. The illumination prefixed to one of the manuscripts of Walther's poems evidently attributes knightly rank to him. He is represented, as he describes himself in one of his poems, seated in the attitude of sad meditation on a moss-grown stone. Against the stone a knight's sword, with belt attached, is leaning. Moreover, the same volume gives us Walther's armorial bearings, which are : on gules a cage quadrate, or, the wires argent, pale-wise ; within the cage a falcon close, passant and regardant.

Concerning Walther's family and early life we know absolutely nothing. That he left the paternal roof at an early age we gather from his poems, but under what circumstances we cannot even conjecture. We only know that it was at the Court of Leopold VI. of Austria that he first appeared and laid the foundation of his fame as a Minnesinger.

In Austria I learnt to sing and say.

Leopold's court was one of the most brilliant in the whole empire,
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and Vienna was considered second to Cologne only in size, wealth, and importance. The Duke's generosity had attracted thither the most renowned of the Minnesingers, and amongst them the famous Reimar the Elder, the nightingale of Hagenau. In him the youthful Walther found not only a model, but a zealous teacher and a warm friend. Unfortunately, however, the friendship between the two poets was not lasting. Although we are not told in precise words the cause of this estrangement, the hint contained in Walther's poem on the death of Reimar leads us to suppose that, in some form or other, jealousy and rivalry were at the bottom of it.

At the time that Walther left the retirement of his Tyrolese home for the stirring life of ducal Vienna, the German Empire stood at the zenith of its greatness and of its might. The aged Barbarossa had just brought to a close the twenty years' struggle with Italy. A few years later, Saladin's triumphs in the East led the chivalrous Emperor to undertake, in the decline of his glorious life, the most splendid and imposing of the expeditions that ever Christianity sent forth to check the power of the Infidels. Barbarossa was succeeded on the imperial throne by Henry VI., one of the most powerful sovereigns that ever ruled the empire of the West. His weak body was animated by all Frederick's energy, without any of his considerate scruples. He aimed at nothing less than a power such as Rome had possessed in the palmiest days of the Cæsars—at an empire under which the sovereigns of Europe should be the vassals of the German Crown. But all these lofty plans were dispelled like vain dreams by Henry's sudden death at Messina in 1198. The glory of Germany fell with him, and was succeeded by years of civil war and misery and humiliation.

By a singular coincidence this national catastrophe, sufficient in itself to turn the whole current of Walther's life, was accompanied by a complete change in the circumstances which had made his sojourn at the Court of Vienna a period of almost unalloyed happiness and prosperity, under the genial influence of which his fame had sprung up and spread to every court and through every province where the German tongue was spoken.

Walther's first patron, Duke Leopold, died in 1194, and was succeeded in Austria by his eldest son Frederick, and in Styria by his second son Leopold. The possible accession of the younger brother to the ducal throne seems to have been overlooked by the courtier poet; and he had put himself to no pains to secure the young prince's favour. Indeed, the mention of "an old offence" would appear to point to something more than mere indifference.

When Frederick joined the ranks of the Crusaders in 1197, Leopold was appointed regent of Austria during his absence. From that moment Walther's position at court underwent a change. But when, on his brother's death in 1198, the regent suddenly became duke, Walther at once recognised that for him "the gate of fortune was barred." With but a bleak prospect before him, the minstrel was obliged to abandon the scene of his early happiness and fame, and to seek shelter and patronage from some more friendly prince. It is under such circumstances as these that his wanderings begin. We can picture him as the illumination of the Manessian manuscript represents him. He is in the flower of his age: long flowing locks hang over his shoulders. His features, though not handsome, as he himself allows, are noble and manly, and set off by a full, fair beard. He wears the close-fitting cap of the time: his doublet is of a rich blue colour which contrasts sharply, but not unpleasantly, with his red hose. Mounted on his horse, and girded with his sword—for though a minstrel, he does not forego the privilege of his knightly rank,—with his violin by his side, he goes from castle to castle and from court to court. His wanderings have no fixed goal. He sets out in the morning not knowing whither his footsteps may stray, and commending himself to that same Providence that cares for his fellow-minstrels, the birds:—

With Thy grace let me rise to-day,
Be Thou, God! with me on my way,
Lead and protect wherever I may ride.

He is not always a welcome guest, for there are some to whom the warblings of the lark and the strains of the nightingale are importunate; and there are rude barons and churlish monks who have no hospitality for the minstrel and no praise for his lays. From these the wanderer turns with some disappointment but with no ill-will, at most flinging at them an epigram that will immortalise their meanness, as at the friars of Tegernsee. But when the great will not receive the minstrel, he can always depend on the generosity and the enthusiasm of the people. If the monks send him away "merely damper from drinking water," the citizen will share with him his can of wine. Though his Minne-lay may not reach the ear of noble dame, it will be learnt and treasured by the simple burgher-maid, for he does not disdain to play in the streets of towns or on the green of humble villages. He scatters music and poetry about him for the enjoyment of high and low alike, as impartially as the sun sheds its light and the breeze spreads its freshness. Thus he will visit "many lands from the Elbe to the Rhine and back to Hungary:" he will

learn "the manners of men from the Seine to the Muor, from the Po to the Drave."

At the death of Henry VI. his son Frederick was only three years old. Philip of Suabia, the child's uncle, at first endeavoured to secure the succession for his nephew, but yielding to the entreaties of the national party, he consented to accept the crown which Frederick was too young to wear, and was crowned, with the real crown jewels, at Mainz. Meanwhile, however, the papal faction had also been at work. It had chosen Otto of Braunschweig, and caused him to be crowned at Aachen, though only with false crown jewels—a circumstance of no small importance in those days. The anarchy and confusion consequent on this double election first drew Walther into the political arena. He at once declared his sympathy for the national, as against the papal, party. It is not surprising, therefore, that, on leaving Austria, Walther should have directed his steps towards the Rhine, where Philip held his court. He had left Vienna early enough to be present at Mainz on the coronation-day, and he embraced the opportunity which this gave him of laying his poetical homage at the feet of the new sovereign. The youthful Hohenstaufen, "the young sweet man," received the poet with his wonted affability, and Walther's head, which "had sunk to his knee" at the death of Frederick of Austria, was again "raised in joyful carriage." "The Crown and the Empire" have taken him under their protection, and in his delight he undertakes "to fiddle for whoe'er will dance."

Having been amongst the first to call upon Philip to accept the crown and to congratulate him on its assumption, Walther doubtless thought himself entitled to throw in a word of advice, and that advice was not altogether disinterested. Liberality is its burden. Alexander is quoted as a model of royal munificence; "he gave and gave, and giving won the kingdoms of the earth." It would have been wiser to impress upon Philip the necessity of economising the gold in his coffers. His liberality was such that, instead of bringing him all the kingdoms of the earth, it obliged him to sell or pawn his inheritance to satisfy the claims of his soldiery. And yet, in spite of this, there were still murmurs at his parsimony, and even Walther seems to have been disappointed in his expectations. In a later poem he again impresses on Philip the virtue of liberality, recalls the saying of Saladin, that "a prince's hands should be pierced with holes," and cites Richard of England, who owed it to his own generosity that his people collected the immense sum demanded for his ransom.

Amidst the misery and distress that marked Philip's short reign,

the poet uttered one song of triumph and rejoicing. The year 1204 saw at its close the submission of the Landgraf Hermann of Thüringen to Philip. On Christmas-day "a Cæsar's brother and a Cæsar's son," with his young queen, the Grecian Irene, "the rose without a thorn, the gall-less dove," went in solemn procession to the church of Magdeburg, accompanied by Hermann, as well as by the Duke Bernard of Saxony, and followed by a glittering retinue of Thuringian and Saxon lords. Walther was present on the occasion. He has described the pageant; we might say he has painted it, like pictures in the old manuscripts, on a background of bright gold. A sad fate was in store for the royal pair whose praise the poet celebrated with all the fervour of his patriotism. Less than four years after this triumphal procession in Magdeburg, Philip fell by the hand of the assassin, and Irene, the thornless rose, withered away in sorrow over his early grave.

The Magdeburg festival marks the beginning of another epoch in Walther's career. It is the last trace of his connection with Philip, and it inaugurates at the same time his friendly relations with the Landgraf of Thüringen. Landgraf Hermann was one of the most liberal and munificent patrons of the gay science. It was he who had enabled Heinrich von Veldecke to complete his translation, or rather his imitation, of the *Æneid*. It was for him that Wolfran von Eschenbach composed his *Wilhelm von Oranse*, and that Albrecht von Halberstadt translated Ovid's *Metamorphoses*. Brought into contact with the open-handed prince, at the Magdeburg solemnity, Walther availed himself of the opportunity thus afforded him to better his worldly position. Hermann, on his side, was, doubtless, not unwilling to number amongst the courtly minstrels who gathered about him at the Wartburg, the acknowledged prince of Minnesingers. And thus, though without rupture with his former patron, Walther transferred his poetical allegiance from Philip to Hermann, and he next appeared at Eisenach, describing the gay doings of the court. To judge from the lively account which he gives us, there assuredly were few places in Germany where politics were, outwardly at least, less cared for, and where the misery which weighed on the nation at large was so little felt as at the Wartburg. The poet warns all whose ears are sensitive, or whose head is weak, to keep away from the Court of Thüringen if they would not be driven quite out of their wits.

Amongst the valiant knights who feasted with Hermann in the halls of the Wartburg, there was one whose name has, very characteristically, been handed down to us in Walther's verse. It is

William, Count of Katzenellenbogen, the ruins of whose stronghold are still reflected in the waters of the Rhine. He presented the poet a costly diamond, and for this act of generosity is celebrated as "the handsomest of knights." The praise is somewhat marred by the explanation that good looks are not to be judged by outward show. In contrast to the picture of the generous count, Walther gives us that of Gerhardt Atze, who, in spite of his knightly rank, seems to have been a butt for the wit and sarcasm of the merry company. Gerhardt having clumsily shot the poet's horse, meanly refused to pay the three marks at which the owner valued it. For this he is likened to a scarecrow, and described as rolling his eyes like a monkey. In those early days the spirit of our adage, "Handsome is that handsome does," was well understood by one class at least—by the wandering minstrels. And, indeed, its very words might pass for a translation of the line in which Walther embodies his and their professional creed:—

Milder Mann ist schön und wohlgezogen.

It is easily intelligible that the continual feasting and indiscriminate hospitality of the Landgraf brought others besides "noble heroes" to Eisenach, and that Walther was not always well pleased with the guests with whom he had to associate, and before whom he had to sing. Nor did he hesitate to give utterance to the objection he felt to the mixed society amongst which he at times found himself. But there is good reason to believe that the riot and revelry at the Wartburg, the "schmählich Gedrang" to which Wolfran also bears witness, were not the only cause of the poet's growing discontent. Unscrupulous rivals arose, and found partisans amongst the revellers, for whose excesses they doubtless showed more indulgence than the high-minded and noble minstrel. Gradually, for this was the work of several years, he began to feel that, under the circumstances, his position at court was becoming more and more precarious. His complaints prepare us for another change in his career. Soon we behold him departing, not without sorrow, from the pleasant Thuringian castle, and passing through Eisenach lying so pleasantly at its foot, on his way to distant Vienna. But the same poem which announces his presence at the court of Leopold also tells us of the disappointment which has come to him there. That the "old offence" had been forgotten, that he had been well received, and that, for a time at least, his position was all that he had anticipated, is sufficiently clear from the passage in which he calls Leopold "his comforter." *But there soon came over the ducal court a change in no way to the*

liking of those who, like Walther, were dependent on the generosity of a patron. Leopold resolved to undertake a Crusade; but the heavy expense of keeping up the magnificent state for which his court was famous had drained his coffers. It was necessary as a preliminary measure to retrench expenses. The example of the sovereign was followed by his nobles, and Vienna thus lost its attractions for the minstrels, who soon began to desert it for more generous courts at the approach of the winter of economy. With a heavy and disappointed heart, Walther was again obliged to leave the court which, but a short time before, it had been the height of his ambition to be allowed to approach.

It was probably after leaving Vienna for the second time that Walther betook himself to the Court of Bernard, Duke of Carinthia. Neither the precise date nor the length of his stay can be ascertained from the two poems which bear reference to his connection with the duke. All that can be gathered is, that after having been kindly treated by Bernard, and receiving many gifts from him, the false representations of rivals and enemies caused him to lose his favour as well as the gift of a suit of clothes which had been promised him—a suit of new clothes—for Walther declares that he had never condescended to accept any other.

Twice disappointed in his hope of finding permanent patronage, Walther again turned towards Eisenach. He had so recently left it in discontent at his position, that he may have felt some misgivings as he again presented himself and, humbled by adversity, implored the protection which he had somewhat independently thrown up. But Hermann again received him with generous hospitality, and showed himself as liberal and as kind as in former years. Unfortunately, the poet's joy was but brief, and here, too, in Eisenach, his stay was destined to be of short duration. Not more than a year after his arrival, Landgraf Hermann, with many of the first princes of the empire, threw off his allegiance to Otto IV.—he had been recognised emperor by both parties at the death of Philip—and declared for Frederick, who, supported by the Pope, now laid claim to the imperial crown. But Walther still remained true to the national cause, and to his hatred of papal interference. Loyalty to him whom he considered the legitimate emperor of Germany drove him forth from Hermann's hospitable court to take his part in the stirring events of which his fatherland was again to become the scene.

On leaving the Wartburg, Walther, who had doubtless many opportunities afforded him of discovering the political tendencies of

the German princes, proceeded to the Court of Ludwig of Bavaria, suspected, not without cause, of being in communication with the heads of the conjuration against Otto. From Bavaria he was sent by the Duke as envoy to Markgraf Dietrich of Meissen. It was probably owing to the poet's influence that both these princes were amongst the eighty who met Otto at Frankfort on his hasty return from Italy, where he was at the time when Frederick set up his rival claims to the throne. Walther remained in Meissen, but the share which he had had in the negotiations was not forgotten. A wax taper—a recognition on the part of feudal lords of valuable aid rendered to them by those in their service, an equivalent of the modern "order"—was sent him by Ludwig through the Markgraf. Less than a year later, however, Dietrich followed the stream of defection, and joined the ranks of Frederick, his example being soon after followed by Ludwig of Bavaria.

It was doubtless these repeated disappointments that induced Walther no longer to look for patronage from any but the Emperor himself, to follow his fortunes in the field, possibly fighting for him with his knightly sword as courageously as he hurled his indignant invectives against the one great enemy of Germany's freedom—Pope Innocent.

The first in order of the poems written at this time—that by which, as it were, he opened hostilities against Rome—represents the angels as uttering a three-fold woe at Constantine's fatal gifts to the Pope, and prophesying the evils which must accrue to the world in consequence of them. In another poem, all the misery which oppresses the world is laid to the charge of the Pope, who is branded a new Judas, a sorcerer "skilled in devil's lore."

In 1213 Innocent issued an appeal to Christendom to send succour to the Christians in the Holy Land, and directed that boxes should be placed in every church to receive contributions towards the expenses of a Crusade. That the Pope was moved to this by no mean, grasping desire for money is proved by the fact that he devoted one-tenth of his own income, as well as of that of his cardinals, and one-fortieth of the income of the remaining clergy, to the same purpose. Walther, blinded by party hate, saw in these "boxes" only a new device for filling the papal coffers, and inveighed against them in unmeasured terms. His denunciations exercised so much influence on men's minds that, according to the testimony of Thomasin von Zerclacre, a clerical writer, he prevented thousands from hearkening to the commands of God and of the Pope.

Wand er hât tûsent man betoeret,
Daz si hânt überhoeret
Gotes und des bîbistes gebot.

The loyal fidelity with which Walther clung to the imperial cause and shared its declining fortunes, long after it was deserted by the most powerful of the German princes, undoubtedly deserved the gratitude and the recognition of Otto. That the poet should have felt this, and even urged his claim, can scarcely be accounted boldness or presumption. He was wearied of the aimless, wandering existence he had hitherto been forced to lead; he longed to make for himself a home, to feel that there was a roof for his head and a seat by his own hearth to which he might retire and spend the closing years of his life. He appealed to Otto for the fulfilment of his modest wish. His request was not altogether unheeded. It produced ample promises of future wealth; but promises which Otto neglected whilst he still possessed the power of fulfilling them, and which repeated reverses before long rendered him wholly incapable of keeping.

From what is historically known of Otto's character and conduct, it may well be supposed that Walther's stay at his court was essentially the result of loyalty to the cause which Otto represented, and not of any respect or affection for Otto himself. The chronicler describes the gigantic Guelph, of whom he hints that he had been chosen rather for his immense stature than for any moral worth, as a proud fool, "*superbus et stultus.*" His intemperance, both in eating and drinking, was a by-word. He was surrounded by favourites and flatterers more vicious than himself, who entertained him with coarse practical jokes at the expense of the highest and most influential of the nobles that still remained about him, who pandered to his passions and helped him in his low-lived intrigues, and a condition of whose existence it was to destroy all the good influences which might redeem him. It was but natural that the fortunes of such a monarch should steadily wane, and that his followers should gradually abandon the cause which his conduct was wrecking. We cannot blame Walther if he, too, wearied and disgusted with the riot and debauchery of the Guelph, and, moreover, disappointed in his own personal expectations, should also turn to the Hohenstaufen.

It was probably about the middle of the year 1214, shortly before the decisive battle of Bouvines, that Walther left northern Germany, shaking the dust from his feet, and turned towards the genial south where he had spent so many happy days. The first announcement which we have of his new political connection is in a poem in which he petitions "the protector of Rome and king of Apulia" to pity his loneliness and his poverty, and to grant him that which Otto had

promised but not given—"a home and a hearth-side." Walther's request was not granted immediately; but the pressing circumstances of the moment may well excuse some delay on the part of the generous monarch. Shortly after the battle of Bouvines, however, the minstrel's highest ambition is reached. Frederick grants him a fief, and his joy breaks forth in song. He wishes the whole world to hear of his good fortune. He no longer fears the frost of February for his toes; he needs never again dance attendance on mean, miserly patrons; his neighbours will not run from him as from a cobold now. Too long has he lain stricken with the "disease of poverty;" he has repined and scolded so often and so bitterly "that his breath stank;" but now the King's bounty has dispelled all that made life bitter.

Walther's estate was at Würzburg. The site is still indicated, and is in the Elefanten Gasse, in the very midst of the town as it now stands. The sum which it brought was thirty marks—barely sufficient for his wants, the poet says. Now, according to his own valuation, "a noble horse" which he lost at Eisenach through the clumsiness of Sir Gerhardt Atze was worth three marks. Surely, a property to which was attached a yearly rent-roll of ten times the value of a war steed cannot be considered so insignificant. But Walther's cry of poverty was intended as a protest against the tax imposed in 1215 by the Council of Lateran for the purpose of defraying the expenses of a Crusade, and it is not impossible that if he did not go beyond the truth, at least he stretched it to its furthest limits.

After the bitter disappointments which Walther had experienced in Otto's service, it was but natural that his first feelings at the possession of an imperial fief should have been those of unbounded delight and heartfelt gratitude. Neither was it unnatural, however, if we consider his early career, that his new style of life, when the gloss of novelty had worn off, should have lost much of its charm. The monotony of his idyllic retreat and his rural surroundings were but little suited, if not to his nature, at least to the habits which, with length of years, had acquired the force of a second nature. His enthusiasm for "the sweet birds' strains," for "fields and flowers," for "the lily and the rose," for "the stately linden," was more poetical and, we may perhaps say, more fashionable than true. In reality, his heart was rather taken up with the splendour of courts than with the beauties of nature. And thus, but a short time, at most a few years, after his retirement from public life, we find him leaving the manor he had so earnestly prayed for and so gratefully accepted, to mix once more in the busy, active world. About the year 1217 Walther again appears in his beloved Vienna. But the change in his

worldly circumstances is apparent. He is no longer an ardent partisan. Prosperity, no less than adversity, has toned down his opinions, and he has become a calmer observer of the great events of the day. No longer dependent on the liberality of patrons and on his own poetical success for his daily bread, he is less impatient of the petty jealousies of rival minstrels.

When Walther left the seclusion of his manor for the Court of Vienna the system of rigid economy which had virtually banished the poet from the Austrian capital still prevailed, but Walther accepted it in a very different spirit from that which had inspired his farewell address some years before. A good-natured joke at the expense of the poor court—so poor, that it had not even ladies to adorn its dances—takes the place of his former complaints.

It was presumably during his visit to the Austrian capital that Walther took the opportunity of visiting both Medlick and Aquileia. The kindness and hospitality with which he was received both by Prince Henry and by the venerable Patriarch, are acknowledged in verses which show that, though the poet was now independent of the bounty of patrons, he had not lost a minstrel's appreciation of those who were as able as they were willing to exercise the liberality—"the Milde"—of which his earlier poems make such frequent mention.

Shortly after Duke Leopold's return from the Crusade, probably about the beginning of 1220, Walther again left Vienna, this time never to return to it again. It seems probable that he left Austria in accordance with the wishes of his Imperial patron and liege Frederick II., for it is to his court that we must now follow the aged poet.

When Frederick at last resolved to undertake, or at least to pretend to undertake, the Crusade for which he had taken the cross several years before, he appointed Engelbert, Archbishop of Cologne, regent of the empire, and tutor to his young son Henry. In the midst of the important business which the regency brought with it, the Archbishop was not able to afford much time to personal supervision of his ward. It was, therefore, necessary to look about for a man of mature years and experience, as well as of sufficient learning and courtly attainments, to fill the important post of actual tutor to Prince Henry. The imperial choice fell on Walther von der Vogelweide. Doubtless flattered by this mark of confidence, he accepted the responsibility, and undertook the task of educating the royal pupil on principles scarcely in accordance with those generally ascribed to the middle ages, declaring at the outset that—

Youth to rule by caning
Is a worthless training.

The hopes which he entertained of his scholar were soon dispelled by the precocious vices of Prince Henry. Before long the tutor, made wise by sad experience, regretted that he might not try the efficacy of the rod to enforce his authority. Out of gratitude to Frederick, who, since his departure, had bestowed a new mark of favour on him, by sending him a wax taper from Italy, Walther remained at his post till Henry's vicious conduct made it altogether untenable. But at last, wearied with trying to master a youth who, though "too young for the sword," was now "too old for the rod," he threw up the ungrateful office.

It was probably about the middle of the year 1223 that Walther abandoned the Imperial Court and the profession in which he had met with so little success, for the comparative solitude of his manor at Würzburg. He was at Würzburg when, some two years later, he learned the sad fate which had overtaken his friend and patron Archbishop Engelbert. In November 1225 the regent was way-laid and treacherously murdered by his own nephew, Count Frederick von Isenburg. Except amongst a few dissatisfied nobles, there was a general and sincere grief at his untimely end. Walther, who knew Engelbert's virtues as a churchman as well as his talents as a statesman, is the eloquent exponent of the popular sorrow and indignation on this occasion, and invokes the blackest curses of hell on the murderer.

From 1225 to 1228 all Walther's interest, all his enthusiasm, seems centred in the Crusade for which Frederick had nominally started several years before, but which had not yet led him farther than Southern Italy. The aged minstrel repeatedly rebukes the dilatory German princes; he threatens them with the anger of heaven, and endeavours to excite at least their fears by recalling the signs and wonders—the darkening of the sun, the ravages caused by a fearful storm—which were supposed to portend the approaching dissolution of the world. In his zeal he chides even the angels for their want of sympathy, and actually refuses them all honour until such time as they shall rise and assist Christianity in the struggle with the heathen.

In June 1228 the Crusade really began. Frederick sailed eastwards with forty galleys, to carry out, in spite of the Pope's excommunication, that which he had been excommunicated for not doing before. Amongst those who left their homes to share the dangers of the long journey, and of an expedition which had begun under the curse of Rome, was the aged minstrel Walther von der Vogelweide. Not as a warrior, but as a pilgrim only, did he accompany the army

of the cross on "the dear journey over the sea." The last of his extant poems is a cry of triumph uttered as he beholds the Holy Places. His joy was brief. Even here, in Palestine, he was to behold the corruption, the treason, the unholy feud between Church and State, which had in former days called forth his indignant protests. The Pope—it was now Gregory IX.—had sent out two Franciscan monks to Syria to forbid the Christians to have any intercourse with Frederick or his army. On their arrival, the crusaders found themselves shunned by the Templars and by the knights of St. John, and left entirely to their own resources. With 800 knights and 10,000 infantry, the German emperor could not hope to wrest Jerusalem from the Infidels. But what could not be accomplished by the sword was effected by all-powerful gold. On the 19th of March, 1229, Frederick made his entry into the Holy City, and, in the Church of the Holy Sepulchre, placed the crown of the kingdom of Jerusalem upon his own head. Two months later, he turned homewards with his crusaders, and landed at Apulia on the 10th of June.

With this ill-starred expedition all our knowledge of Walther von der Vogelweide ends. Even his return to his manor at Würzburg rests on no direct contemporary evidence. A chronicler of the next century records that the Knight Walther lies buried in the quadrangle of the Neumünster, under a stately linden—the Minnesinger's favourite tree. According to the same authority, the poet left instructions in his will that the birds should be fed on his grave, and that four holes should be cut in the stone to receive the daily allowance of corn and water. But clerical greed, against which he had inveighed so bitterly in his life-time, did not long respect his injunctions. The money willed to the birds was appropriated by the monks, and the daily distribution of corn was changed into a yearly distribution of rolls to the canons of the Abbey.

The stone which marked the spot of the minstrel's last resting-place has long since disappeared, but the epitaph which was carved on it has been preserved :—

Pascua qui volucrum vivus, Waltherc, fuisti,
Qui flos eloqui, qui Palladis os obiisti !
Ergo, quod aureolam probitas tua possit habere,
Qui legit, hic dicat : ' Deus istius miserere !'

CHARLES READE.

[*To the Editor of THE GENTLEMAN'S MAGAZINE.*]

I N this magazine for August I note an article upon Charles Reade, which I have read with interest, because the novels of this virile and vigorous master have been amongst the few English novels in which I have ever found delight. Most English novels always appear to me to be written either for school-children or police-sergeants. Charles Reade's alone are written for men and women, and he has never been afraid to call a spade a spade. In the article to which I refer there is no lack of ardent eulogy. Most English criticism is, unfortunately, too often either only eulogy or only abuse, the analytical faculty being generally lamentably absent. But the essay in question, oddly enough, denies Charles Reade a quality that he possesses in a marked degree; and, on the other hand, attributes to him a power of delineating womanhood which he as surely has not. It denies that he writes "mirthfully" or is a cheerful writer, despite the sound laughter of "Peg Woffington," the mirth that ripples like clear water in "Christie Johnstone," and the subtle if somewhat grim humour which characterises every novel he has created. The English sense of humour is, unhappily, very blunt, and needs coarse food. Like a palate which has been hardened by gross cooking, it has lost all power to discriminate, or to appreciate delicate and subtle flavours. It needs the broad farce of Wardle or Weller before it will grin, and indeed is ignorant that the keenest humour will not provoke laughter at all, but rather a delighted sense of something perfect in allusion and suggestion. This higher humour abounds in all the novels which Charles Reade has written, and is rather akin to Cervantes and Molière than to Charles Dickens.

It may indeed be said that the mind of Charles Reade always sees the humorous side of every incident, and is sometimes even so occupied with this side that it disturbs his tragic powers, although these are also of the very strongest, as a thousand passages which will recur to his readers' minds at once are there to prove. As for his not being a cheerful writer, I know not whether this is intended as a compliment or a reproach. If to be "cheerful" is to be full of

loving-kindness to men and animals, to be hopeful of humanity—more hopeful than it warrants—and to inculcate faith, forbearance, mercy, and tolerance, then is Charles Reade “cheerful;” and to be more cheerful than this would argue, in a grown man, either ignorance of the woes of the world or insensibility to them.

In this article it is further asserted that he has never depicted persons in the lower middle-class of English life. It has always appeared to me that his characters invariably belong to the middle-class: Dodd, a merchant-skipper, and a score of others, belong to the lower middle-class; Hardy, the banker, and Vizard, the squire, to the upper middle-class; mechanics, farmers, clergymen, doctors, lawyers, sailors, the whole of the middle-class in fact, constitute all his *dramatis personæ*. And here I approach what has always seemed to me the greatest *lacuna* in Charles Reade's works: as he never by any chance draws a man of the world, so does he never by any chance draw a gentlewoman. The *femme du monde* is to him an unknown creature. His most charming women behave on occasions like kitchenmaids. Of all that is implied in the old adage *noblesse oblige* he seems to have no comprehension.

Take for instance Zoe Vizard, who is described as of good birth and breeding: she speaks and acts like a barmaid, giggles and cries “La!” Julia Dodd (whose mother, we are told, is of great culture and refinement) does the same. So does Grace Carden; also Helen in “Foul Play.” Christie Johnstone and Peg Woffington are admirable, because they are quite true to their respective stations; but when he draws what he calls a lady (of which odious word he is very fond) he fails entirely, and her manners are those of a third-rate schoolgirl. Even Katherine Gaunt, the best of his female characters, too often offends in this vulgar fashion, and when she goes to sleep on the same bed with Mercy (Gaunt's other wife) becomes something more than of coarse fibre. His only idea of woman is the middle-class woman, and not the best specimen of that. The woman of the people he can draw (though he does not draw even her in her nobler phases), but the gentlewoman he cannot, or will not, or at all events does not; and of the *femme du monde* he is utterly ignorant.

Of the woman who is essentially of our time, the woman of high culture, of artistic taste, of profound knowledge of men and manners, of delicate cynicism, of unconscious extravagance, who is always *dans le mouvement*, always difficult to interest, often a little sad at heart when most surrounded and most flattered,—of this woman he has never had even the faintest imagination. Nor has he had any either of a less complete type, which, less of and in the world, is yet high-

bred, and, being so, is incapable of the "bridling," the "giggling," the "palpitating," the "fuming," and all the various forms of effusion which he distributes so liberally between all his heroines, and which disfigure even so fine a creature as Jael Dence in one of the finest of his romances, "Put Yourself in his Place"—a story so picturesque and vigorous that it merited a better title. Indeed, the crackjaw and interminable titles which Charles Reade has often selected may have had something to do with his failure in obtaining the universal fame which he undoubtedly deserves. They do not remain on the public year, and do not do justice to the work they name. Another cause for that lack of universal popularity which the article I herein comment on regrets, is probably to be found in the habit Charles Reade has grown into of using both hideous and ludicrous names for his characters, and unusual and ugly words (such as "poll" and "nape," to express the head and the back of the neck), which lamentably disfigure his text. They are terms correct enough, no doubt; but they and many similar ones constantly recur, and are jarring and tiresome, and too often spoil his finest passages. They "showed napes" is his expression in "A Woman-Hater" to signify that two people turned their backs upon each other in a fit of temper!

In the language of passion also he is deficient. No English writer ever seems to know it except Mr. Swinburne and Mr. Browning. The language and the feeling of art also are absent from these works: into that enchanted land Charles Reade seems never to have wandered. Humanity, and not the highest humanity, seems alone to have power to attract his interest. It may be said that he is happiest in animated movement, in the recital of perilous and heart-stirring incident. There is an heroic grandeur in his treatment of these themes, and one feels that he ought to have been a great and adventurous soldier, or singer of war. He is also, when he chooses, a master of pathos, and has, perhaps, not given way often enough to his instincts of tenderness. The scene in "Never too late to Mend" where the exiles listen to the English lark is unsurpassable in exquisite beauty, in simple and natural feeling beautifully rendered. This union of grace and force is very rare in any writer, and it is, to my thinking, deeply to be regretted that these rare powers are often marred by the use of a jarring or an ignoble word, such as I have alluded to, sadly breaking the melody of his mellow and manly English.

In conclusion, I must lament that the article I here refer to goes out of its path to attack "Romola." Now, no one can see the defect of "Romola" better than I can do, because its sole defect is that it

is not in the very least Italian. From the Florentine citizen who is made to love *mutton* (a meat abhorred by all Tuscans) to Romola herself, who is a purely northern character, and even Tito, who as a Greek or an Italian lover would never have troubled his head about Tessa after a fortnight of her, the whole book is purely northern; it has not a breath of Italian air in it. But, setting this apart, "Romola" is a fine work by reason of the intellectual power and harmonious cohesion which were the especial attributes of George Eliot: and the dragging of "Romola" into an essay on Charles Reade is so precisely a specimen of one of the many radical defects of English criticism, that I must be allowed to condemn it. No French critic would so err as to drag into a review of Alexander Dumas a sneering censure of a work of Octave Feuillet. No French critic would say in writing of Victorien Sardou that he did not resemble Émile Gaborian, as this article, oddly enough, says that Charles Reade does not resemble Anthony Trollope! Why should he resemble Trollope? If he be a great author, he will resemble no one of his contemporaries. And this, indeed, is the power and charm of the creator of "Christie Johnstone"—he is entirely and delightfully original; if he had not waited those fifteen years or more between being called to the bar and allowing himself to write, he might perhaps have been yet more delightful and yet more original than he is. Also, there can be no doubt that he would have been a finer artist in fiction had he considered and dealt with his work as a work of art alone, and not overweighted each with some social question as cumbersome to incorporate as it is ephemeral in interest.

OUIDA.

SCIENCE NOTES.

PERPETUAL MOTION.

WHEN a boy I was a "Constant Reader" of "The Penny Mechanic," and I still have some copies of odd numbers. In that for March 11th, 1837, is a curiously absurd engraving of a machine for perpetual motion. A helical spring is connected with a crank on one side of a fly-wheel, and on the other side is another crank similarly attached to another spring, but in opposite action, so that when one spring goes down the other is pulled up as the wheel turns round.

The inventor states that when thus started the recoil of one spring will communicate its force to the wheel, which in turning will pull up the other; this will then recoil and turn the wheel in like manner, and therefore again lift the first spring, and so on for ever till the machine is worn out. The inventor modestly states that, "although the machine is not so powerful as one moved by steam, nor do I say it would supply the use of steam, yet, for a little power it might be useful." In reply to a correspondent who demonstrated the absurdity of the scheme, the inventor coolly replied that he had made a model which worked successfully.

This is only a fair sample of the infatuation of perpetual-motioners generally. A man who cannot intuitively perceive that a continuous resistance like that of friction must eventually put an end to any sort of motion not continuously renewed by some additional force, is beyond the reach of mechanical reasoning expressed in mere words.

If, however, a machine be so constructed as to receive some continually and spontaneously renewed impulse, a practically perpetual motion, lasting as long as the machine, may be obtained; nor is the problem at all difficult, seeing that so many natural forces are constantly operating around us.

About twelve months ago, a "perpetual" clock was started in Brussels. An up-draught is obtained in a tube or shaft by exposing it to the sun; this draught turns a fan, which winds up the weight of the clock until it reaches the top, when it actuates a brake that stops the fan, which is free to start again when the weight has gone

down a little. It was keeping good time in June, after nine months of such perpetual motion.

The perpetual motion of the Niagara and other river falls is maintained by the same agent—solar heat, which lifts the water as vapour, then condensation and gravitation bring it back again. We have only to imitate such machinery to produce a multitude of similar perpetual motions, actuated by this inexhaustible source of power.

ELECTRICITY FROM CARRIAGE WHEELS.

ODDLY connected with the above Note is the following passage from the speech of the Chairman of the Metropolitan Railway, at the half-yearly meeting held on July 21 last. He said, "I don't see why, with a few more experiments and a little patience, we should not make the revolving wheels and axles of our passenger trains the motive power to make the whole of our trains as light as day by some form of electric illumination."

This is very much like the much older suggestion, the "brilliant thought," of making the wheels of a carriage of gigantic diameter in order that their "leverage" should accelerate its motion, and push the horse forward.

Sir E. W. Watkin could scarcely have meant what his words actually state, but judging by the reported "applause," some of his audience may have accepted it literally, for the idea is about on a level with some of the electric schemes that are "floated," and are extracting money from so many much-believing and nothing-understanding victims.

No power is exerted by carriage wheels; they are merely passive anti-friction rollers, though the motive power of the engine might certainly be applied indirectly through them to a dynamo machine; but this would act upon the wheels as a brake sufficiently resistant to stop any ordinary train before the rival of daylight could be obtained.

A PROPHECY.

IN a communication to "Knowledge" (reprinted in "Science in Short Chapters," page 369) I ventured to suggest an explanation of the lank and shrivelled aspect of the typical Yankee by describing him as a "desiccated Englishman," the desiccation being produced by the dryness of the continental climate of America, exaggerated in winter-time by their stove arrangements.

In a note to this, Mr. R. A. Proctor added that in each of his

three visits to America he lost about thirty pounds in weight, which he recovered on returning home.

Another case has lately come painfully home to me. My son, acting as assistant to Major Herschel in his pendulum experiments, first at Kew, then at Greenwich and Portland Place, went on to Washington, and continued his duties there. His letters from this city were exuberant with enthusiasm and admiration of everything : but one of them was rather alarming, as it recorded the state of his own pulse, beating at 120 and upwards. Although a stubborn total abstainer, he was evidently in a state of abnormal excitement—a sort of dry-oxygen intoxication.

Presently, at New York, he became "dazed," and dangerous symptoms of incipient brain fever appeared, which being observed by Major Herschel, he was sent home at once. During his short absence he had grown thinner and taller, lank-jawed and sallow, displaying all the characteristic symptoms of what I cannot refrain from calling *acute Americanitis*, from which, by the natural operation of his native air and abundant sleep, he has recovered far more rapidly than was expected.

All that I can learn indicates that this is but an exaggerated typical case of what usually occurs to Englishmen, especially to growing youths, when they cross the Atlantic and proceed inland and southward.

I may mention another curious and illustrative case before proceeding to the intended application.

At one of those delightful Thursday evening meetings which were held at the house of the late George Combe, in Melville Street, Edinburgh, and named "circumtabular teas" by the facetious and brilliant Dr. Samuel Brown, some family portraits were shown and compared. These included photographs of the descendants of the Combes who had emigrated to America a generation before, and portraits of some of the family then living in Edinburgh. Besides these, there was a portrait of "Black Hawk," a Red Indian chief.

We placed the chief on one side, the Edinburgh portraits on the other, and those of the descendants of the American emigrants between, and all agreed that the deviations from the original family type were in a direction towards that of the Red Indian. Mr. Combe maintained that this is generally the case, and I agree with him in regarding the typical "native American"—that is, the descendant of early English settlers—as displaying *physically* (I do not say intellectually and morally) a notable degree of reversion—or rather

deviation—towards the aboriginal type displayed in the best examples of Red Indians—*i.e.* the old fighting chiefs.

Now, what is likely to follow from all this drying up of fibre, this development of constitutional intensification, this general inflammatory exaltation, or *Americanitis*?

I think that it must develop, is developing, and has developed, constitutional chronic disturbances—in some cases amounting to disease—which may be curable by change of climate; the most effectual change being a return to that which produced the old stock.

My prophecy, then, is that American physicians will presently discover this, and recommend their well-to-do patients—those who have worked as only Americans in the pursuit of wealth do work—to turn to the land of their fathers, to breathe the soothing humidities of its anodyne atmosphere, and thereby double the remaining years of their lives, which I believe an overworked American of sixty years of age may do, and when he understands this subject and has sufficient means will do, to such an extent that Old England will become the sanatorium and final resting-place, first of her American children, then of Australians, and finally of all the rest of the continental world, when her mission of overspreading it is fulfilled.

FLAMELESS GAS BURNING.

MR. FLETCHER, of Warrington, whose blast gas-furnaces, solid flame burners, &c., have done so much in extending the use of gas as a source of heat, has, in the course of some lectures on the subject, shown a striking experiment which has been described in the newspapers in a manner that must have puzzled some of my readers.

Thus *The Athenæum* of July 22 tells us that "A gas flame was directed on a mass of iron wire until it became red-hot; a blast of air being turned on, the flame totally disappeared, but the iron fused and ran into drops. It was evident that the highest heat was obtained when the flame was entirely absent."

This would have been natural magic with a vengeance had it been done as the writer in *The Athenæum* states. Anybody acquainted with the rudiments of the subject will see the absurdity of such a description. Had Mr. Fletcher turned an additional blast of air on to a flame of gas already in sufficiently full combustion to make the iron red-hot, he would have cooled both the flame and the iron. Had the blast been sufficient to cause the flame to "totally

disappear," he would simply have imitated the very commonplace experiment of blowing out a candle. Rumford's axiom that the air supplied to a fire beyond the quantity required for complete combustion "is a thief" is now too well understood to need further demonstration.

What Mr. Fletcher actually did was this. He first exhibited a luminous flame wherein the supply of air was insufficient to effect the immediate combustion of the carbon in the gas; then he gradually supplied more and more air until the *white* flame was extinguished, and only the blue flame, indicating complete combustion, remained. This blue flame made the iron red-hot. Having thus adjusted his supply of air so that it should neither be in such excess as to cool the flame nor so deficient as to allow the flame to precipitate solid carbon particles, *he stopped the supply of gas for a moment* by pinching the flexible tube which conveyed it to the jet; the flame issuing from the jet was thus extinguished, but the gas, mixed with just a due supply of air, dashed against the extended surface of a red-hot ball of fine iron wire. What happened then? Simply that the combustion of the gas (*i.e.* its combination with the oxygen of the air blast) occurred not at the nozzle of the jet, as when a match was applied, but on the actual surface of the red-hot wire which did the work of the lighted match in starting this combination or combustion. A flame actually existed, but only on the immediate surface of the wire, and being thus localised the heat evolved by the combustion was applied directly where its work was required, and none was wasted "in the desert air" between the nozzle or jet and the surface of iron, *i.e.* there was no flame radiating wastefully.

But why did not the flame rush back from the red-hot wire to the nozzle, as it does when we use a match? This, if I understand the descriptions rightly (for I have not witnessed the experiment), was due to the velocity of the issuing gas exceeding that at which the ignition of the flame proceeds. In one of my Notes in last January number, page 120, I described the experiments of MM. Mallard and Le Chatelier, which proved that the maximum velocity of propagation of the explosion of a mixture of coal-gas and air is $3\frac{1}{2}$ feet per second. Ten times this velocity is easily obtained in forcing gases through jets that have sufficient aperture to allow their free motion. Therefore, when the mixture of air and gas rushed against the red-hot wire and inflamed on its surface, a contest or race commenced, the flame ran back at the rate of $3\frac{1}{2}$ feet per second, but the gas rushed forward at greater speed, and thus the flame

could not get away from the surface of the wire against which the gas was impinging at the greater velocity.

There is more in this than a mere sensational experiment. It indicates one of the directions in which all improvements in the economical application of gas-fuel (*i.e.* the fuel of the future) should proceed, viz., that the combustion shall occur just where the heat is required for doing its work, and that it shall do its work there with the smallest possible amount of wasteful radiation or convection or conduction.

THE INTERNAL HEATING IN THE BESSEMER PROCESS.

AN interesting illustration of the effectual application of the principle of economical combustion above enunciated is afforded in the Bessemer process.

The "converter" is a pear-shaped vessel made of stout iron plates duly bolted together and lined with a refractory material (ganister in the old-fashioned converters, or Thomas and Gilchrist's basic lining of lime, magnesia, &c., in others). The bottom of this vessel is a sort of colander perforated with holes about large enough to admit a man's little finger. These communicate with a blowing engine. The converter is charged by turning it on its side and pouring into its open mouth from five to ten tons of melted pig-iron. This is done while it is lying over, side downwards; thus the melted metal occupies the hollow in its side and does not reach the bottom.

Then the blast is turned on, and the ponderous vessel, actuated by hydraulic machinery, is turned slowly over to an upright position. Now the melted iron stands over the colander, but the blast is so furious that none can run through the holes. Tons of liquid metal stand on air, or I should rather say, dance on air, as the liquid is flung upwards with furious commotion and its gravitation brings it down again towards the openings, but not so rapidly as the blast ejects it.

At first we might suppose that these torrents of cold air would cool the melted metal, but not so; it grows hotter and hotter, and at last attains a temperature far exceeding the possibilities of any foundry melting furnace; it becomes much hotter than the melted steel in the Sheffield crucibles.

The reason of this is that pig-iron contains variable quantities of silicon and carbon, two combustible elements having some curious chemical resemblances. When in Sheffield I analysed all the brands of "Bessemer pig" used at the works of Sir John Brown & Co. I

found that their average percentage of silicon was 2·84, and of carbon 3·19. In a charge of six tons this gives an absolute weight of effective fuel amounting to about 8 cwt. The "blow" lasts about twenty minutes; the silicon, being the most combustible, is first burned, then the carbon, and both are usually well burnt out. Now, these combustibles are in such combination with the iron of the pig that they form a portion of the metallic liquid through which the air is forced, and thus their burning takes place intermolecularly (if I may be allowed to use such an adverb), and therefore the heat does its work even more directly than in the case of Mr. Fletcher's experiment described in my previous Note. There the combustion occurs on the surface of the iron; here, within its actual substance. It is not at all surprising, therefore, that 8 cwt. of solid fuel thus burned in twenty minutes should raise the melted metal to the temperature above described.

I have watched the process very often, and have seen the iron not merely melted but volatilized, driven off as gaseous iron, forming red clouds of condensing and oxidized iron vapour floating above the shaft into which the huge flame is rushing and roaring forth from the mouth of the converter.

METEORIC HAILSTONES AT THE BRITISH ASSOCIATION.

MY Science Notes for June, 1881, commenced with an account of M. Schwedoff's hypothesis concerning the meteoric origin of hailstones. At the recent meeting of the British Association this theory was brought forward and supported by Professor Sylvanus Thompson. Considerable discussion has since arisen, the highest authorities being unmercifully opposed to this "manifest absurdity."

Sir William Thompson demonstrated the impossibility of a cosmical hailstone reaching the earth by proving (mathematically, of course) that in passing through our atmosphere with planetary velocity, the hailstone would perform 13,000 times as much work as would raise water one degree Centigrade, and therefore, of course, the ice would be melted, volatilized, and dissociated into its component gases, &c. &c.

When Sir William Thompson demonstrated mathematically the dimensions of the ultimate atoms of matter, he was triumphant, and remains so, seeing that nobody has ever seen these atoms, and there is no proof (except mathematical demonstration) of their existence. Therefore they may have any size or shape, or whatever else the

transcendental mathematician chooses to demonstrate by formulating on the basis of imaginary data.

But in this case we are not entirely dependent on formulæ, as the heat communicated to a meteoric body in its journey from cosmical space to the surface of our earth can be demonstrated by facts.

Masses of meteoric iron do actually come from outer space and plunge through our atmosphere, just as the hailstones are supposed to come and to plunge by Schwedoff; in doing which, they must, according to Sir William Thompson, generate the above-named amount of heat and be subjected to its operation.

To understand this, we must remember that the specific heat of water is (in round numbers) nine times as great as that of iron, *i.e.* an amount of heat-producing work required to raise a given weight of water one degree will raise the same weight of iron nine degrees, or nine times as much iron one degree. Therefore if the water be raised $33,000^{\circ}$, as Sir W. Thompson affirms, the iron will be raised $33,000 \times 9 = 297,000$ degrees. But iron fuses at the modest temperature of $1,600^{\circ}$ Cent. (according to Pouillet), and is vaporised at somewhat above this. How, then, do these meteoric masses perpetrate the "manifest absurdity" of reaching the earth in a solid state?

The reply is the simplest possible, but has nevertheless escaped the mathematicians. Let the reader hold one end of a poker and place the other in a bright fire, or do the like with a shorter piece of iron. He will learn thereby that one end of the poker may be red-hot while the other is pleasantly cool, or, in other words, the conduction of heat even through metals is a work of time—is not instantaneous.

But the passage of a meteoric stone through our atmosphere at the enormous velocity supposed by Sir William Thompson is completed in a fraction of a second—a very small fraction, if it descends perpendicularly. Therefore, no matter how much work may be done on the surface of a solid meteorite of any considerable magnitude, its interior will remain cold during its fall, although its surface be volatilized or dissociated, or any otherwise affected by the heat evolved.

There is a splendid collection of meteorites in the British Museum, some of them cut through to display their internal structure. They all indicate superficial fusion, or, I may say, refusion, such as would occur if intensely heated superficially in their passage through our atmosphere. Large hailstones are similar. They are composed of snow-like crystals in the centre, and surrounded with a surface of ice such as would be produced by the melting and regelation or welding of such crystals.

If this be the case with so good a conductor of heat as metallic iron, how much more so with a mass of ice, which of all known solids is about the worst conductor of heat. But the reader may say that the melting of ice demands far less heat than the melting of iron. This is true, but under the conditions of great heat generated by surface friction the heat must not only melt the ice but evaporate the water. Adding the latent heat of water to that of steam, and allowing for the high specific heat of water, it will be found that more than three times as much is required to vaporise 1 lb. of ice as to melt 1 lb. of iron. *Quantity* not *intensity* of heat, *i.e.* heat-work, not mere temperature, is here considered.¹

This seeming paradox will appear less paradoxical if the simple experiment is tried of placing in the midst of a fierce fire a piece of ice and a piece of iron of same weight, and watching the effects of each on the fire. The ice will melt less rapidly than might be supposed, and its effect of robbing the fire of its heat will be strikingly displayed by the blackening of the glowing coal around it. The ice will do much more than the iron. Of course the iron should be of the same temperature as the ice.

A reply to my view of the subject may possibly be made by asserting that, as the evolution of heat is proportionate to the work done in arresting the mechanical motion of a body, the whole of the body whose motion is arrested will be heated accordingly. Such an assertion would not be inconsistent with the views of thermodynamics which are expounded in some of our text-books. If it is made, I will discuss it in a future Note.

“WATER, WATER EVERYWHERE.”

NOT only has the idea of meteoric hailstones been treated rather scornfully, but that of the universal diffusion of water through space in any form has been similarly handled.

On the other side are the following facts. Water has been proved to evaporate into air of every degree of attainable density, and into the most complete vacuum that modern refinements of the Sprengel pump, aided by chemical absorption, can produce.

¹ The following are the figures, stated in degrees of Fahrenheit: Latent heat of water 142°, of steam 966°. To convert the ice at 32° into water demands 142°, to raise this to boiling point 180° more, making 322°; add to this 966° for conversion into steam, and we have 1,288°. This multiplied by 9 gives 11,592°. The melting point of wrought iron, according to Daniell, is 3,280°; three times this leaves sufficient latitude to allow for the unknown latent heat of liquid iron, which is certainly but small.

The compression of the air or the refinement of the vacuum makes no difference as regards the quantity of vapour that ultimately passes into a given space from a surface of liquid or solid water. This quantity is simply a function of temperature. It is not the air or other gas above the water that is saturated, but the *space*. Until such saturation is completed, the evaporation of the water continues.

What, then, must happen to our ocean? What must happen to the water we see on the planet Mars, to the vapour of water the spectroscope displays around the sun, and indicates on Venus, Jupiter, and the other planets?

These waters must evaporate into interplanetary and interstellar space until that space is saturated, the amount required for such saturation depending on its temperature. If it were not already saturated, our ocean would dry up and leave this world as barren as the moon, and there could be no snows deposited around the poles of Mars, nor vapour accumulated in the solar atmosphere.

THE VOICE OF LIZARDS AND FROGS.

THIS subject has recently been discussed in *Nature*, and Mr. S. E. Peal writes from Assam, describing the curious cry of the *gui* or *gooe* lizard, about 3 to 3½ feet long, which is named from the sound it makes.

The slow-worm has a voice, or makes a clacking or chirruping sound with its mouth, which I can hear distinctly at a distance of five or six yards.

Common English frogs, although usually silent, scream piteously at times. I first observed this some years ago when, in my Birmingham froggery, an ill-fed monster specimen seized a smaller brother by the hind legs with cannibal intent. The screams of the victim brought me to the rescue. They scream in like manner when seized by a duck, but not when wounded by a blow. I have seen cases of sad accidental mutilation by scythe and spade where no sound was uttered. From this I infer that fear or mental horror is the chief source of the cry.

W. MATTIEU WILLIAMS.

TABLE TALK.**A CREAM-PRODUCING MACHINE.**

THE opportunity was afforded me while recently in Berlin of contemplating a novel and curious invention, the introduction of which into London can be only a matter of time. This consists in the cream-extracting machines of Lefeldt and Leutsch, at present at work in the establishment of Herr Bolle, a not inappropriate name for one dealing in milk. The principle of these machines rests on the application of centrifugal force. Milk, as it comes from the cow, is put into a species of drum, which is kept rapidly revolving; the milk, as the heavier portion, flies to the outer circumference and is collected by a species of lip; the cream, which is lighter, falls to the inner circumference. The establishment of Herr Bolle is not unlike an English sugar refinery. The milk, lifted into tanks on the top floor, falls by gravity into the creaming machine. Two or three qualities of cream are extracted. The thickest quality goes to the confectioners, and the second quality to hotels. Butter and cheese are made on the premises, and the skim milk is sold at twopence a quart. What is not required for human consumption is converted into a species of condensed whey, which is useful for feeding horses. 120 of these machines are now, I am told, in use in Germany. About 35,000 litres of milk are, when the eight machines in employment in Berlin are in full work, dealt with per diem.

AN ACTOR ON ACTING.

MR. BOUCICAULT'S address upon the art of acting delivered recently at the Lyceum Theatre inspired much amusement and some interest. An audience, consisting almost entirely of those connected with the stage or the drama, assembled to hear one of the most competent of modern actors explain the mysteries of the art he practised. In a certain sense, the result was necessarily disappointment. All the charm of an exquisite method was employed to dignify elementary information and to ennoble commonplace. Very humorous was it to see Mr. Boucicault's illustrations of what is grotesque in acting,

and it was no less agreeable to hear him denounce the overweening conceit which is the chief obstacle in the way of almost every actor. No lesson was, however, obtainable except that what is rudimentary in art may be taught. To establish that fact needed neither "ghost from beyond the grave" nor actor from beyond St. George's Channel. In his condemnation of some vices of English speech, and especially our customary omission or mispronunciation of the letter *r*, Mr. Boucicault scored at our expense.

TRAGIC ACTING.

ONE point raised by Mr. Boucicault was inadequately treated. What seems unnatural in tragic delivery is, Mr. Boucicault holds, attributable to the fact that the sentiments and language of tragedy are unnatural, and that ordinary pronunciation seems out of keeping with the style of composition. So far as it extends, this assertion is true. Much more requires to be said, however, in order to furnish a full explanation. The blank verse of English tragedy demands a special form of declamation, and without it the whole spirit of tragedy would be lost. So soon as realism penetrates into tragedy, tragedy itself will, so far as the stage is concerned, expire. The delivery of the tragedian is, however, a direct transmission from the time when tragedy was a choral service, and as such was a chant. Constant attempts have been made to modify this, and a great change in the end has been made. So strong, however, is the influence of tradition, that something of the colouring yet survives, and is distinguishable in every actor that ever trod the stage. In the seventeenth century Molière censured the monotonous delivery of tragedy, and his associate Baron, prompted by him, made some attempt to reform it. In subsequent years many actors, both French and English, introduced further changes; Le Kain, Talma, and Hackel in France, and Edmund Kean in England, being chief agents in the reformation accomplished. That the old influence is not entirely subdued is, however, sufficiently apparent to those who listen to Mdlle. Bernhardt in "*Phèdre*," or Signora Ristori as Lady Macbeth.

RESEMBLANCE BETWEEN THE 15TH AND 19TH CENTURIES.

EXACTLY analogous to the great Renaissance age is the age in which we now live. Never since the beginning of time was there a period when intellectual life was more keen, or when more brilliant discoveries came to benefit or to dazzle mankind. Fairy

tales seem commonplace beside the verities of modern discovery, and new and inconceivable potentialities open out for the human race as we observe how we are now able to treasure up the forces of nature, and employ them at our leisure for human advantage. Those problems which spring from the continual increase of population take another aspect; as we perceive how to face new conditions, new and incalculable resources are brought into play. So ignorant, however, concerning itself is the age which witnesses the new birth, that it is disposed to regard itself as commonplace. Meanwhile, to bear out the parallel I always feel inclined to establish, the present century, like the fifteenth, is perplexed, as no other period has been, with the problems of human suffering. Only since the days of Keats can it in truth be said that, as Shelley writes—

Our sweetest songs are those that tell of saddest thought.

To prove the truth of these statements, and to show how, from the time of the Greek—who in his delight in beauty, put on one side all thought of what is oppressive, or, it may be, cruel, in human surroundings—until to-day there have been but two periods the literature of which is coloured throughout with gloom, requires an essay rather than a note. The task, however, though it might be long, would not be difficult. To others besides myself the parallel I have indicated appears real and full of significance.

PSYCHOLOGICAL PUZZLES.

I SHARE in great part the ideas of those who think all that is knowable is worth trying to know—at any rate, trying “to know something about.” In geology, chemistry, meteorology, botany, astronomy, I can find much which helps to answer the question, “Is life worth living?” But I must draw the line somewhere, and I draw it at the more advanced developments of psychology. I think I have a fair average power of understanding at least the popular aspect of all that is commonly called scientific. Sylvanus Urban is not a specialist—not a professor of what Matthew Arnold calls instrument-knowledge; like Bacon, he takes all knowledge for his field. But I confess the psychologists are too many for him. Now, here is a passage, in a quarterly review of psychology and philosophy, respecting which I would ask if men or angels can tell what it is all about:—“The transcendence of man is maintained on the ground of his exercising powers, which it may plausibly be disputed whether he exercises at all. The notion that thought can originate, or that we can freely will, is at once set down as a transcendental illusion”

(transcendental illusion is good, it is very good, and yet—it is but transcendental illusion). “There is more hope of result if the controversy is begun lower down, with the analysis of an act which it is not doubted that we perform. Now, the ordinary perception of sensible things, or matters of fact, involves the determination of a sensible process, which is in time, by an agency that is not in time—in Kant’s language, a combination of ‘empirical and intelligible characters’” (“I trust I make myself understood”)—“as essentially as do any of those ‘higher’ mental operations of which the performance may be disputed. The sensation of which the presentation as a fact is the nucleus of every perception, is an event in time. Its conditions, again, have all of them a history in time. It is true, indeed” (pray mark this), “that the relation between it and its cause, if its cause is understood strictly as the sum of its conditions, is not one of time. The assemblage of conditions, ‘external’ and ‘internal,’ constitutes the sensation. There is no *sequence* in time of the sensation upon the assembled conditions.” And so on, apparently without any meaning, or even any tendency to a meaning, in time—or out of time—till we come to this stupendous assertion: “The agent of this neutralisation of time can as little, it would seem, be itself subject to conditions in time, as the constituents of the resulting whole, the facts united in consciousness into the nature of the perceived object, are before or after each other.”

In what way is the world benefited by lucubrations of this sort? Those who produce them (we say it without the least ill feeling towards the late Professor T. H. Green, to whom the above is due) must have known perfectly well that while the ideas they were enunciating were commonplace enough—not worth the trouble of stating, in fact, in plain terms—such verbiage as the above would tend to convey an idea of profundity altogether unmerited. They seem to act on the idea that many will say of them, or (to all intents) think of them—

If they find sense in that which is Greek and worse to *me*,
Why, what very very deep old boys these deep old boys must be.

THE UTILITY OF FOLLY AND VICE.

UNDOUBTEDLY there is a germ of truth in Mr. Mattieu Williams’s recent half-jesting Science Note on the “Utility of Drunkenness.” In default of war and massacre, plague, pestilence, and famine, the human race increases too fast for the life-supporting powers of the earth. In my contemporary *Knowledge*, Mr. Proctor has shown that even at the rate of increase of population observed in

England during the last few years, the world would have been many times more than covered by its human inhabitants alone, in 4,000 years, starting from a population of only ten persons at the beginning of that time. Yet in England there still remain many causes by which the too rapid growth of population is prevented. When we consider how large a proportion of our infant population perish before they reach their fifth year, most of them from causes which might be avoided; when further we note in how many of our cities, towns, and villages, deaths from preventible causes are rife, we see that, at a very moderate computation, the annual rate of increase per cent. of population might be raised from its present value, about $1\frac{1}{2}$, to twice that; in which case, apart from emigration, England would be overcrowded in less than a century, and the whole world packed over its entire surface with human beings in less than a thousand years. Philanthropists are doing their best to hasten the approach of this undesirable consummation; and really, at a first view, it seems as though their anxiety to put an end to wars and rumours of war, to prevent or to limit disease, to teach men, women, and children how they should clothe themselves, how arrange their houses, what precautions to take as to exercise, change of air, sleep, and so forth, were in itself commendable. Yet, if they attained their wishes all round, and if, further, men learned from them to be vegetarians, not to hunt or to kill other animals, and so forth, two centuries or so at the outside would see the land surface of the earth so closely covered with inhabitants that there would be no living. If all were equally unselfish (stay, "altruistic" is the proper word), all would die at about the same time. The saviours of the world, under these untoward conditions, would be the unwise: the drunkards, who provide themselves with a happy despatch; the anti-vaccinationists and anti-vivisectionists, who strive to keep alive the seeds of disease or to prevent the inquiries by which disease might be eradicated; the tight-lacing women, who kill themselves and their offspring; the reckless, the vicious, and the abandoned.

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DUST: A NOVEL.

BY JULIAN HAWTHORNE.

Only the actions of the Just
Smell sweet and blossom in the Dust.

CHAPTER XXIV.

THE words which Philip had heard, and the shock of surprise which they gave him, combined with the unexpectedness of the whole scene in Mrs. Lockhart's little sitting-room, rendered obscure his perception of what immediately followed. By-and-by, however, two or three of the persons present took their departure, and then Philip found himself alone with Fillmore, Mrs. Lockhart, and Marion. The latter had already received the congratulations of the company, to which she had replied little or nothing.

"My dear daughter," now exclaimed Mrs. Lockhart, with gentle fervour, "what a splendid surprise! To think I should have lived to see you a great heiress! Twenty thousand pounds did you say, Mr. Fillmore? To think of Mr. Grant's—Mr. Grantley's having been so rich! He was so quiet and simple. What a noble thing to do! But he was the son of Tom Grantley, you know, and Lady Edith Seabridge was his mother. And, oh! Philip, how happy you and Marion will be now!"

"I think we should have been that, at any rate," said Philip, smiling at Marion, and conscious of eleven hundred pounds in his pocket.

"Yes; at least as happy," said Marion, in a low voice.

"I had not been aware," observed Fillmore with a slight bow, "that Mr. Lancaster was to be congratulated as well as Miss Lockhart."

"You can bear witness that I was not a fortune-hunter," said Philip, laughing. "When was this will made, Mr. Fillmore?"

"Very recently," he replied, mentioning the date.

"Strange!" said Philip, musing. "He was as sound and healthy a man of his age as ever I saw. Had he any premonition of death?"

"Apparently he had not," the lawyer answered. "But, as you would have learned, had you been present throughout the reading of the document, the will provided for the probable contingency of his continuing to live. In that case, Miss Lockhart would have come into possession of ten thousand pounds on her next birthday, and the remainder of the legacy hereafter. Mr. Grantley evidently intended her to reap the benefits of his wealth without having to wait for his decease."

"I wish he had told me!" murmured Marion, folding her hands on her lap and looking out of the window.

"Madame Desmoines was not here?" remarked Philip.

"I have had some correspondence with her on the subject," said Fillmore. "As it happens, she was not named as a legatee in the will. But, had it been otherwise, I gatheted that it was not her purpose to accept anything."

"Why so?" Philip asked.

"I was not informed; but it may be presumed that the will would have designated her as the testator's daughter, and she was perhaps not prepared to acknowledge the relationship."

"Oh, Mr. Fillmore, do you think Madame Desmoines could have any doubts of Mr. Grantley's honour?" exclaimed Mrs. Lockhart. "I'm sure she has too fine a character herself to think evil of others."

"I should not explain her action on that ground—were I to attempt to explain it," Fillmore answered. "The Marquise Desmoines is not an ordinary woman: she is very far from it. No direct proof, beyond the testator's confidential statement to certain persons, has ever been advanced as to his identity with the Charles Grantley who disappeared a score of years ago. Had the Marquise adopted that statement, it might have involved inconvenient or painful explanations with persons still living, which, under the circumstances, the Marquise would have been anxious to avoid. I mention no names, and need not do so. On the other hand, she is the owner of a property from her late husband which is in excess of her ordinary requirements. She desires no addition to it, and may have been unwilling to seem to interfere with the advantage of others."

"How could that be?" demanded Philip. "If Mr. Grantley had bequeathed money to her, it would have made no difference whether she acknowledged him or not."

"We cannot be certain of that," the lawyer replied. "It constantly happens that legacies are, for some reason or other, refused, or become in some manner inoperative; and in such cases there is generally an alternative—sometimes more than one—provided in codicils. There is no reason to suppose that Mr. Grantley would have failed to foresee such a contingency, and to provide against it; especially in view of the somewhat exceptional position that he was conscious of occupying."

"That is to say, if he had left his money to Madame Desmoines, and she had refused it, you think he would have provided beforehand that it should go to somebody else?" said Philip.

"I think we have no reason to suppose otherwise," returned the other, with the lawyer's prudence of phrase. "And it may have been in order to facilitate her refusal, had the alternative presented itself, that she acted in anticipation."

"I was sure she would do what she considered right," said Mrs. Lockhart, who had not in the least comprehended Fillmore's analysis, but had inferred from his tone and manner that he was in some way defending Perdita from an aspersion.

"She possesses many qualities not commonly found in women," remarked Fillmore, looking down at his hands meditatively. After a little he rose, as for departure. Philip was just then saying something to Mrs. Lockhart; and as Marion also rose, she and the lawyer were for a moment by themselves.

"Mr. Fillmore," she said, colouring as she spoke, and lowering her voice as if she intended her words for him only, "didn't you say that legatees often refused their legacies?"

"All sorts of strange things occur, in law as well as elsewhere, Miss Lockhart."

"Why should anyone refuse a legacy?"

"For no very wise reason, perhaps," said he, smiling slightly. "From what are called conscientious motives, sometimes; or quite as often from enmity, or whim or . . . But I dare say you can imagine as many reasons as I."

"Yes," said Marion absently; and then she added, "So that is why codicils are put in wills?"

"Such provisions are sometimes inserted in codicils," said Fillmore, after one of his characteristic pauses, and a fixed glance at Marion.

"Are there any codicils in Mr. Grantley's will?" was her next question.

"A codicil, inserted to provide against the miscarriage of some-

thing in the body of the will, remains, of course, inoperative and therefore practically non-existent, if the miscarriage in question does not occur," replied he carelessly. Before she could answer he added, "I have over-stayed my time. Farewell, for the present, Miss Lockhart ; I trust you may long enjoy the means of happiness and variety afforded you. Mrs. Lockhart, I wish you good-day ; Mr. Lancaster, your obedient servant."

"I suppose this business won't be settled for some time to come," observed Marion, following him to the door. "I suppose I should have an opportunity of communicating with you beforehand, if I should wish it?"

"I shall always be at your disposal," returned Fillmore, bowing ; and declining Mrs. Lockhart's invitation to remain to dinner, he left the house without further parley.

"Oh, my dear daughter," cried Mrs. Lockhart, in her overflowing way, when the three were again alone, "what do you think? Philip has his news, too ; he is an heir, if you are an heiress ; all our good fortune comes at once !"

"You, too? How?" said Marion, appearing to be much moved, and turning upon Philip with a face full of a sort of serious excitement.

"Not much in comparison with yours ; we shall never be equals in that respect, I'm afraid," returned Philip, smiling. "But that poem of mine, which I wouldn't let you read, because I didn't think it good enough for you, seems to have been good enough for other people. My publisher has sold enough of it, at last accounts, to bring me in more than a thousand pounds of profit. If it would only go on at that rate, I should do very well."

Marion looked deeply delighted, and at the same time agitated. "Huzza ! Philip, I knew you must be a genius !" she exclaimed. "Of course it will go on—how can you help writing better and better. That is much better than inheriting other people's money, which you don't deserve, and which doesn't really belong to you—not even so much as to other people. A thousand pounds in such a short time ! We shall not need Mr. Grantley's money at all."

"Oh, you may find it useful to buy your bonnets and shawls with," said Philip, laughing.

But Marion seemed not to hear him. She paced about the room, stopping now and then and humming some air to herself ; and, finally, she seated herself at the piano and began to improvise, striking melodious and changing chords, sometimes soft and tender, sometimes resonant and tumultuous. Philip, who was more stirred and influenced by music than by almost anything else, especially by the

kind of irregular and mysterious music that Marion was given to producing, sat near her, with his head on his hands, letting the harmonies sway and kindle his thoughts. When, at length, the music ceased, and Philip raised his head, he perceived that he and she were alone ; Mrs. Lockhart had gone out.

"I shall always be a poet, as long as I have you to play to me," said he. "Only, I shall never write such poetry as I think of while you play."

"It does not take much to make two people happy, does it?" she said.

"Very little : only love, the rarest thing in the world ; and music, the next rarest ; and a few other trifling matters of that sort," returned he, with superb irony.

"Ah, my dear love, you know what I mean. All we need to be happy is each other, and what we can do for each other. Nothing else, except something to eat and drink, and a room to live in. I'm sure I've been happier in this house, with you, and with only money enough to keep alive on, than I ever was before, or expected to be."

"Well, I have a theory about that," said Philip, "though I've never worked it out. Love in a cottage is a good thing ; and so is love in a palace. But love is not always of one quality ; in fact, it never is the same in any two human beings. Sometimes it is simple and quiet and primitive ; and then a cottage is the place for it ; because, if we are to be at ease and content, what is outside of us ought to correspond to what is within, as the body to the spirit. But sometimes love is splendid, royal, full of every kind of spiritual richness and variety, continually rising to new heights of vision, plunging into new depths of insight, creating, increasing, living in wider and wider spheres of thought and feeling. And, for such love as that, a cottage is not the right environment. You must have a palace, a fortune, splendour and power ; indeed, nothing can be too splendid, or splendid enough."

"And could not such a love be happy without all that splendour?"

"Well, no—according to the theory ! But, as I said, I haven't completely worked it out yet. There is a certain kind of happiness, no doubt, in doing without what you know you ought to have ; and, as a matter of fact, few or no people ever get just the surroundings they want, or ever are or expect to be entirely happy ; and, perhaps, to be paradoxical, they wouldn't be happy if they were. Imagination is a great factor in the account, and hope. The material world is too rigid and heavy ever to obey the behests of those two magicians ; and so their best work has always been done in cloudland and dream-

land. Perhaps, in the next world, nature—this phantasmagory of earth, sea, and sky—will not be fixed and unchangeable as here, but pliant and adaptable to one thought and will: so that the statue which I see in my mind shall at once clothe itself in spiritual marble before my eyes; and the rocky island, which I imagine in yonder azure sea, shall straightway rise from the waves in all its tropic beauty; and yet all this be not a dream or a fancy, but a reality as real and immortal as my own mind—which, after all, is the only reality. Reality has nothing to do with fixedness. Your lips of flesh and blood, my beloved Marion, are not so real as the kisses I give them, or as the love that goes into the kisses. Well—what were we talking about?”

“About whether twenty thousand pounds were necessary to make us happy.”

“Oh, was that it? Then we can take our time; for, as we have got the money—at least, since you've got it—we can settle the problem in the most satisfactory of all ways—by practical experiment! And that will take us a lifetime at least.”

“Then, what if we found we had tried the wrong experiment, after all?”

“Well, I suppose all discoverers run that risk. Meanwhile, it seems to me, 'tis better to have the money to lose than to win.”

“I'm not sure about that,” said Marion. “Money gives us power in the world, but 'tis only the money we earn that gives us a right to the power. Inheriting money is a sort of robbery. The power we have is not our own—we have usurped it. It brings a host of things crowding about us—things to be done, business to be attended to, claims to be considered: things that we do not care about, and that do us no good; that prevent us from feeling and thinking what we really care about. If one is born rich, it may be different; but to become suddenly rich without any help of one's own cannot be good, Philip. It must take away more than it gives; and what it takes away must be better than what it gives.”

“But some people must be rich,” said Philip. “Providence has so decreed. And why should it not be just as much the will of Providence that you should inherit riches as that you should be born to them or earn them? At all events, you have got it, and must make the best of it. Besides, there have been bigger fortunes in the world than twenty thousand pounds, as well as people who needed it more.”

“Do you love me any better than you did before you knew of this?”

“Knowing it has not made me love you more—if that's what you

mean ; but the longer I know you the more I love you, so I love you now more than I did an hour ago."

"Should you love me any less if this money turned out to belong to some one else?"

"No, foolish Marion ; by this kiss, it wouldn't make an atom of difference."

"Oh, Philip, I hope it is so," said Marion, her bosom beginning to heave and her voice to falter. "I hate this money, and have been miserable ever since I had it ! It does not belong to me, and I have made up my mind that I won't keep it."

"Not belong to you, Marion?"

"It belongs to Perdita ; she was his daughter. Why should he have come back to England, unless because he hoped to find her, and to make her rich and happy? What have I to do with his fortune? I loved him almost like a father ; and he used to say I was a daughter to him ; but I am not his daughter as Perdita is, and the thought of having what she would have had is hateful ! And it spoils my memory of him : I must think of him now as a man who left me a fortune—not as a dear friend who gave me all the treasure of his wisdom and gentleness. He should not have done it ; he doubted himself whether to do it, for he said something to me once which I did not understand then, but now I know he was trying to find out whether I would consent to such a thing. It is all wrong ; and the only thing to be done now is to give it back."

"To whom?" asked Philip, who was trying not to feel too much amazed.

"To Perdita ; for I know that, when I refuse it, it will go to her. There is a codicil in the will that gives it to her. I am sure of it, Philip, for I spoke to Mr. Fillmore, and I could see in his face and in the way he spoke that there is a codicil ; and the reason he didn't read it was that I had not yet refused the legacy."

"But even if there be a codicil, how do you know it is in favour of Perdita?"

"It will turn out to be so," said Marion, shutting her lips and paling. She was watching Philip's face with an anxiety that seemed to penetrate to his very soul ; it was evidently of supreme importance to her which side his judgment turned. He felt it, and strove to be calm, but the silent strength of her desire flowed against him in a current more nearly irresistible than her words.

"Are you quite sure, Marion," he said, at length, "that you have told me all the reasons for your wishing to do this thing?"

Her cheeks slowly reddened as she replied in a whisper, "I have said all I can."

Their eyes met. "If you don't quite trust me now," said he, with a smile, half grave, half humorous, "perhaps you'll come to it when you've had your way. My darling, you may throw the money into the Thames, as far as I am concerned. If you wish to be rid of it, 'tis right you should be. If it were left to me, I should probably resign myself to keeping it; as it is, 'tis better out of the way. I'll see if I can't write you a greater fortune than that. Meanwhile, you must kiss me!"

Philip had no cause, on that day at least, to regret his surrender. "You see, sir," said Marion mischievously, after some such fathomless spell of happiness as only lovers can feel, "if I had kept the twenty thousand pounds, you could not have had this!"

"I may be glad you had them to refuse, at any rate," responded Philip.

CHAPTER XXV.

THE most natural sequel to a mutual understanding, such as this between the two lovers, would be that they should get married with the least possible delay; and as a matter of fact, that is what happened. The legacy having been handed back at Marion's instance and with Philip's consent, Marion would hardly be justified in opposing any unreasonable delay to the personal claims of so obedient a lover. It is not every man, however much in love he may be, who will surrender twenty thousand pounds without a murmur. But Philip, in the first place, was not of a specially avaricious disposition; and the unexpected success of his poem had impressed him with a belief in the pecuniary possibilities of a literary career, such as rendered him comparatively indifferent to extraneous resources. Beyond this, however, he had the insight to discern that the fundamental motive of Marion's action had not transpired in her argument. What really moved her was some lurking tinge of jealousy with regard to the past relations between himself and Perdita. What basis there may have been for such jealousy, if there were any basis for it, Philip may have known; but he had always avoided any reference to it, and he probably did not care to risk the opening of the subject which would be likely to follow Marion's enforced acceptance of the legacy. Marion would never be happy under the persuasion that she was in possession of money which, in the natural course of things, should have gone to Perdita. Philip, therefore, capitulated with less parley than he might otherwise have attempted.

They were married in the course of three or four weeks, and went to spend their honeymoon on the Continent ; the chief goal of their pilgrimage being the field of Waterloo, where Marion saw her father's grave. There was no drawback to the enjoyment of the journey ; it was a period of serene and profound happiness on which it would be pleasant to dwell at more length. But happiness has few events, nor any apparent movement ; it is like a chapter from eternity, which is the infinite development of the present moment. Time loses its semblance of reality, and the discovery that it does, nevertheless, continue to pass, comes as a surprise. The time arrived when Mr. and Mrs. Lancaster were constrained to set their faces homeward : but they did so with unshadowed hearts. Life had begun for them with the sweetest auspices, and there seemed no reason to anticipate that it would not proceed to still brighter issues.

The home of the newly-wedded couple was to be, for the present, in the old house in Hammersmith, which, with some alterations in the way of furniture, would be commodious enough, and which was endeared by association to Marion and her mother, and to Philip also, as being the place where he had first met his bride. It was now the "little season" in London ; Parliament was to sit early, and the town was rapidly filling up. The excitement of war being over, every one was set upon getting the largest possible amount of excitement out of society, and the next few months promised to be brilliant ones. Among the literary celebrities of the day, no man's reputation stood higher at this moment than that of Philip Lancaster. He was mentioned in the same breath with Byron and Shelley, and there were not wanting persons who professed to find in him qualities quite equal to those of the latter poets. It was rumoured, also, that his personal advantages were on a par with his mental ones ; that he had married a great heiress ; that he was the younger son of an earl ; that his past career had been distinguished by many romantic and mysterious episodes, involving the reputation of more than a few personages of rank both in England and on the Continent ; together with a score of other reports, true, half-true, and untrue, such as invariably herald the appearance in a prominent position of any one whom nobody ever heard of before.

It was the custom at this period for men and women who happened to have achieved distinction either by their brains or by some equally uncommon means, to be invited to social entertainments at the house of Lady Flanders. To be seen there conferred the insignia of a kind of nobility which had nothing to do with the peerage, but which was, perhaps, scarcely the less valued by the recipients of

it. Accordingly it was not without satisfaction that Philip, a few days after his return to Hammersmith, received a communication from her ladyship, conveying her compliments, and an urgent desire to have the honour of welcoming the author of "Iduna" at her abode on the following Wednesday evening, at seven o'clock. Mrs. Lancaster was included in the invitation (not an invariable corollary in similar cases); and, indeed, her ladyship's carriage had left cards the day before Philip's return from abroad, as Mrs. Lockhart testified.

Of course, they could have no hesitation in availing themselves of this first social recognition, in the capital of the world, of Philip's genius; and Marion prepared herself for the occasion with a sentiment of wifely pride at the thought that the world should so soon confirm that opinion of her husband which she herself had more or less avowedly entertained ever since the first moment she beheld him. The young people attired themselves in a manner which would excite less remark in the present day than it might have done ten or twenty years ago, but which, at all events, at the period we write of, was altogether in the mode. Shortly before the carriage was announced, Marion, being ready, went down-stairs, and saw lying on the hall table a letter addressed to Philip Lancaster, Esquire, in Mr. Fillmore's handwriting. Now, Marion had a day or two before written to Fillmore, inquiring whether there were any formalities to be observed in relation to her rejection of the legacy; and she took it for granted that this letter, although addressed to her husband, was the answer to her question. She and Philip had not as yet had occasion to come to any understanding as to their liberty to open each other's letters; and, though Marion would probably, in an ordinary case, have let the letter alone, in this instance she had no hesitation in appropriating it. But at this juncture Mrs. Lockhart came into the hall and detected something about Marion's dress that needed readjustment. Marion put the letter in her pocket and forgot all about it.

They arrived safely at their destination, and were ushered into the presence of their hostess, an immensely tall old lady, with a turban, overhanging eyebrows and a prominent chin. She was of noble descent, and was now recognised as among the most eminent encouragers of literature and the liberal arts; but there were terrible stories told about her youth, when she was said to have travelled in Europe in male attire, to have fought a duel and killed her man, and to have lived several years in some part of Asia under circumstances known only to herself. At this stage of her career, however, she was

a great card-player, sternly religious in the way of forms and etiquette, and reputed to have one of the wittiest and sharpest tongues in London. To Philip she contented herself with saying: "Young gentleman, I used to know your grand-uncle. He was not so handsome a man as you. 'Tis a dangerous thing, sir, to be handsome and to write poetry. People who see you will expect your poetry to be as well as you are, and, if they find it is not, they'll call you both humbugs. I haven't read your poem, Mr. Lancaster, but now that I have seen you I mean to, and then I shall tell you just what I think of it! Mrs. Lancaster, I like you better than your husband; he's not good enough for you, though he'll try and make you believe the contrary. Never let him print anything that you don't like—else he'll make a failure. There—run along now and enjoy yourselves, and you may come here again as often as you like."

The rooms were full of people, many of whom one would be glad enough to see nowadays, after seventy years' vicarious acquaintance with them, through books and tradition. There is no need of naming them here, nor were their appearance and casual conversation (temporary costumes and customs aside) any more remarkable than would be the case in a similar gathering in the London of our times. Philip, indeed, was quite as well worth noticing as any other person there; and he certainly was noticed to the full extent of his deserts. There were murmurs on every side of "That's he!"—"Which?"—"There—tall, short curling hair and white forehead."—"What splendid eyes!"—"Oh, did he write 'Iduna'?"—"Yes, madam: looks like his own hero, doesn't he?"—"Is he married?"—"No."—"Yes, I assure you: two hundred thousand pounds and a beauty."—"Is she like 'Iduna'?"—"She's sixty and a fright!"—"Have you read the poem?"—"Yes—very pretty: vastly entertaining, indeed."—"Here he comes!"—"Oh, pray introduce me!" Amidst such comments and exclamations the poet of the hour found himself adrift, with a tolerably calm and impassive exterior, and within, a voice, half sad, half comical, repeating "This is fame!"

Meanwhile, Marion had been deployed in another direction, her heart and thoughts remaining with Philip; and in this condition she was able to pay but imperfect attention to the curly-haired and bright-eyed little gentleman who had just been presented to her, and whose name she had not caught. He spoke with a slight Irish brogue, and there was a kind of vivacious sentimentality in the tone of his remarks, which had a tendency, moreover, to become inconveniently high-flown and figurative. At length, to be rid of him, she got him to conduct her to a chair, and then sent him off to fetch her a glass of

water. "Who's that girl Tom was talking to just now?" said one man to another, as she sat alone. "Don't know: nice fresh young creature; oh, let Tom alone for being first in the field with whatever's going: and in a week he'll have put her in the Irish melodies, and then the next man may take what is left!" This dialogue was so little to Marion's taste that she rose from her seat and established herself under the wing of an elderly dowager with whom she happened to have some acquaintance; and there, putting her hand in her pocket to find her smelling-salts, she felt the letter that she had forgotten: whereupon she drew it forth and opened it, and was actually absorbed in its contents at the very moment when the author of "Lalla Rookh" was searching for her everywhere with a glass of water in his hand.

The letter was not long, but Marion found it unexpectedly interesting, insomuch that she read it over three or four times, with a constantly expanding sense of its importance. It was not the answer to her own letter, nor had it any reference to that; it was addressed to Philip throughout, and treated of business which was as new as it was surprising. After having considered the written words from every point of view, Marion sat with the letter in her lap and her eyes gazing at nothing, in a state of mingled bewilderment and distress. She had contended against destiny, and had seemed at first to win; but now her flank was turned, and the day was against her.

Through the midst of her perplexity she presently became aware of a dapper little figure standing before her with a glass of water in its hand: she gazed at him uncomprehendingly. Just then, however, another face, which she immediately recognised, appeared amidst the crowd, and not only restored her self-possession, but set all her faculties on edge. She rose quickly, and eluding the astonished water-carrier, she reached Fillmore's side and touched him on the arm.

"Mr. Fillmore, will you please give me your arm? I have read your letter. I wish to talk to you. Take me somewhere where we can be uninterrupted for a few minutes." Fillmore complied without asking any questions, and without showing any particular symptoms of surprise.

Philip, the lion of the evening, was in the meantime getting on very agreeably. After running the gauntlet of numerous promiscuous admirers, who besought him to tell them whether Iduna was drowned, whether the sea-god were real or only a fancy of hers, whether she married her mortal lover, and whether the latter managed to get safe off on the wreck of the castle, and much more to the same effect—

after he had been parrying such inquiries as these with what ingenuity and good humour he might for some time, he happened to raise his eyes, and saw the eyes of Perdita directed upon him from a little distance, with a beckoning expression. In a few minutes he succeeded in placing himself, with a feeling of genuine relief, by her side. And, indeed, he had no reason to be dissatisfied with his position. If there were, in that assembly, any woman more classically handsome than Perdita, there was certainly no one who could compare with her in brilliance and subtle attractiveness; nor any who knew so well how to say what a man would like to hear; nor any who, in the present instance, was better disposed to say it. She touched his shoulder lightly with her hand as he sat down, with an air and smile as if she were conferring upon him a well-earned knighthood.

"This is the hardest part, you know," she said. "Men who do great things are always beset by little people, with their discordant little adulations. It is like what you see on the stage; when Kean or Kemble has given a great passage, and your ears are ringing with it, there comes a flat racket of hand-clapping. That is the world's applause!"

"We must take the deed for the will," said Philip, laughing, "and be glad to get it."

"And so you wish me to believe," pursued Perdita, "that love is a vision that cannot be realised in this world?"

"I don't know that I mean that," he replied; "and I don't want to undertake the responsibility of my own poetical morals. But love is like life, perhaps, never to be found by any dissection of mortal hearts or brains. It is above what can be seen or touched, though that may embody it. You see I am as great a fool as any of my readers. I don't know, any more than the young lady I was just talking with, whether Iduna was drowned or married. But neither do I care."

"There is more than one man in every real poet," remarked Perdita, looking at him intently for a moment, and then looking down; "and the one who appears in the flesh is not always, I suspect, the one best worth having. And yet he may be worth breaking one's heart for. What do you think?"

"I don't remember having made any experiments," said Philip, rather awkwardly.

"Well, it is hardly worth remembering," she rejoined, with one of her ambiguous smiles. "If we remembered everything, we should never do anything, probably; and that may be one reason why women do so little. And so you are married, Philip?"

"Yes," he said, a little reluctant to follow up this train of the conversation.

"What a delightful thing a true marriage must be," she went on; "especially when a man is the indulgent. For he must love, better than any other man, what woman he chooses. You have seen the world, my friend, and studied the human heart; and I congratulate you on having found the woman best suited to make you happy."

"It is not so difficult as you seem to think," returned Philip; "but if I were ten times more so than I am, I should be more than content."

"I am sure if that," said Perdita, smiling again; "if all men were as fortunate as you, you and the world would be the happier. Marion is a poor's wife. She comprehends you. She reverences your genius even more than you do, and she will do more than your genius to make you ill-at-ease. She has the simplicity and the unappreciation that one finds only in the highest natures; she will never increase you with foolish doubts and questions: she will never do anything whimsical or arbitrary: she will never make you appear absurd. She makes me wish that I were like her."

Perdita uttered the last sentences in a low and serious tone. She was looking her lover's eye; it to be the consort of a king or the heroine of an epic. She was warm, exquisite, tinted like a flower, and sparkling like the gems upon her bosom; she had all the grace of a woman, and more than a woman's substance and individuality, and she was telling Philip that she wished she were like his wife! Philip, though not exactly destitute of vanity or of liability to infatuation, was not readily to be deceived. He was quite able to believe that Perdita might be making game of him. And yet, hearing the tones of her voice and looking in her face, he did not believe it. Her words, indeed, could be taken with more than one signification; but there must be genuineness in them somewhere. She wished that she were like Philip's wife. Did that mean that she really considered Marion's qualities of mind and person were more desirable than her own? Or did she mean that there was some cause, unavowed but not unimaginable, why she should desire them more? Some cause not unimaginable: what? She had just expressed her conviction, in tones unusually earnest for an assemblage like Lady Flanders's, that Marion's qualities were such as must command Philip's love. What, then, was the significance of her wishing they might be hers? It was plain enough; indeed, it was its very plainness that was the strongest obstacle in the way of Philip's so understand-

ing it. And yet, thorough as was his love for Marion, he recognised too clearly the wonderful charms and fascinations of Perdita to believe that she could compare herself with his wife to her own disadvantage. No: what she had said was, at least, an implicit censure of his blindness in having preferred Marion or any other woman to Perdita herself.

It is to Philip's credit that he did not allow himself to appear in the least conscious of the unavoidable inference in the matter; but only laughed, and said that he had no doubt any one would like his wife better than his poetry, if they could be afforded the opportunity. And before anything else could be said, who should appear before them but Marion herself, leaning on Merton Fillmore's arm, looking very pale, and with a peculiar satirical touch to her expression which Philip had not seen there since the early days of his acquaintance with her, and which made him a little uneasy. As for Fillmore, his demeanour was, as usual, admirably composed; but Philip fancied that there was something in the glance he bestowed upon him that seemed to say, "Can a honeymoon be eclipsed?"

"Good evening, Madame Desmoines," said Marion lightly; "I hope I see you well in health? Do you like my husband?"

"His poetry has made me rather disappointed with himself; but he is all the better for having such a wife," returned the Marquise, with engaging courtesy.

"I am only afraid of his being too fortunate . . . in some things!" Marion said laughingly; "so, to make the balance even, I am going to inflict on him the misfortune of taking me home. That is, if he will."

"That misfortune is the best of all his fortunes this evening," was Perdita's reply; "and I am enough his friend to be glad of it."

While these courtesies were passing between the ladies, Philip, who perceived that something serious was the matter, had risen and placed himself by Marion's side, and they now moved away together, while Fillmore appropriated Philip's vacated chair. When the young poet and his wife went to make their adieux to Lady Flanders, her ladyship said to Marion, "I saw your husband flirting with that little Marquise. Don't you let him do it! She's the most dangerous woman in this room, and the only one who is cleverer than I am. But I'm clever enough to see through her, and I hope you are!"

And with this benediction the young couple set out homewards.

CHAPTER XXVI. :

THE drive back to Hammersmith was not a particularly agreeable one. Philip began by maintaining a grave silence : he felt his dignity somewhat impaired by the almost peremptory summons to come home before the party was half over, without any reason given or time for consideration allowed ; and he suspected that it might be due to some new jealousy on Marion's part toward Perdita, which made him prefer to leave the conduct of the conversation in her hands. Lady Flanders's parting observations had been peculiarly apt from this point of view, and Philip secretly owed her a grudge for them ; the rather since, although his own conscience acquitted him well enough in the matter, there was no denying that Perdita's language had been open to the charge of ambiguity. Marion, however, could not have been aware of this, and her suspicions, if she had any, must have been aroused by some communication from a third person. Now, it was manifestly undesirable that any third person should be permitted to come between husband and wife at all, much more that the interference should have any weight ascribed to it, except as an interference. Marion was in the wrong, therefore, to begin with, be her own grievance what it might ; and Philip deemed it incumbent on his self-respect to bring forward her explanations without any motion on his side to anticipate them.

As for Marion, she was silent at first from excitement, which, from whatever cause arising, always had a perverse or contradictory effect upon her demeanour ; causing her to laugh at what was serious, and to be reticent when volubility would have seemed more natural. Moreover, having so much to say, she did not know what to say first ; and the matter in hand being, from her point of view, of great importance, she desired to make as few mistakes as possible, especially at the beginning. She saw, too, that Philip was not in an especially good humour, and she wished to mitigate his displeasure before unloading her heart to him. She had, up to this time, full confidence in his love for her ; but she was conscious that what she had to propose would be somewhat trying to his generosity ; and she desired to start with as prosperous a breeze as possible.

Accordingly, she pulled off her glove within her muff (which was large enough to have allowed of much more extensive evolutions) and slipped her warm hand into Philip's. He, however, had his gloves on, and was not expecting her demonstration ; and between

his unreadiness and his glove it did not succeed very well. To make matters worse, he said :

"Didn't you bring your gloves with you, my dear?—'tis a very cold night."

"Oh, yes ; but I didn't feel cold," she replied carelessly, returning her hand to her muff ; and then, feeling that this was not a hopeful opening, she added : "It was too bad to take you away so early, Philip ; but I thought you wouldn't mind when you knew."

Kensington roads were not so smoothly paved then as they are now, and the wheels rattling over the cobble-stones prevented Philip from hearing what she said. He said, "What?" and she, with a sense of being rebuffed, only felt inclined to reply, "You seemed to be enjoying yourself so much, I was sorry to take you away."

"The enjoyment was nothing, one way or the other," he returned ; "but it seemed rather absurd to make so sudden a retreat—don't you think so?"

"You would not think it absurd if you knew my reasons : I could not help it," said Marion quickly.

"Well, I am ready to hear them," rejoined Philip, with an air of judicial impartiality.

Marion had some resentful reply on the tip of her tongue, but she checked herself in time. "I think I would rather wait till we get home," she said at length. "We cannot talk comfortably in this noise."

Philip signified his assent to this arrangement by folding his arms and leaning back in his corner of the carriage ; and very few words more were exchanged between the husband and wife during the rest of the drive : so that by the time they arrived at the house, both felt as if they had in some intangible way been injured. But Marion had the more elastic temper of the two, and she reminded herself that Philip had, after all, some reason to be out of sorts ; and when she turned to him at last, in the solitude of their room, it was with a face smiling, though pale.

"Now, my Philip, you are going to be astonished !" she said. "In the first place, I have been reading a letter written to you."

Philip looked a little blank, running through in his mind all the imaginable persons who might have written him letters which he would not have wished Marion to read ; but he almost immediately replied, "Why didn't you speak of it before we left home?"

"I put it in my pocket, and didn't read it till after we arrived : it was from Mr. Fillmore, Philip" (Philip's brow relaxed), "and the reason I opened it was that I was expecting one from him and

thought this was it. But it was not. It was about something . . . I should never have expected. I hope you will think about it as do. Oh, how happy I should be then !”

“ Sit down, my dear,” said Philip. “ What is the matter ? ”

“ It is about that miserable legacy. It seems to haunt us like an evil spirit. What do you think, love—there was a codicil in the will as I said, and the money is left in such a way that if I refuse it, it might come to you, unless you refuse it too. And I hope——”

“ Come to me ! ” echoed Philip in amazement. “ How is that ? ”

“ It is the wording of the codicil that makes it so,” said Marion. “ It says : ‘ To my nearest acknowledged relative,’ or something of that sort ; and that might be you.”

“ It might be I, if it were not the Marquise Desmoines,” returned Philip, with a short laugh. “ You forget her.”

“ No, I didn’t forget her ; but Mr. Fillmore says that she will not acknowledge that she is his daughter at all. And you are the next nearest to her.”

“ I never in my life heard of twenty thousand pounds going begging in this fashion,” said Philip, bringing his hands down on the arms of the chair. “ Anybody would think it was poisoned. So she maintains she is not his daughter ? ”

“ It is very strange of her : there must be some reason besides what she says,” remarked Marion. “ I remember when she stood by the bed where he was lying, poor dear, she called him ‘ father ’ ; and though he could not hear her, I could.”

“ Well, that is not legal proof, after all.”

“ But the letters in the packet she gave me to keep—those would be legal.”

“ They might or they might not. There’s no telling.”

“ I will send them to her, so that it may be known.”

“ No. She gave them to you to keep for her. You cannot return them with courtesy until she asks for them. And ’tis easy to understand why she should wish them to remain unread. If Mr. Grantley was really her father——”

“ Philip, do you doubt it ? ”

“ My belief is that he was everything that is honourable ; but what I believe or not is nothing to the purpose. Of course, if he was her father, and an honest man, it follows that something must be very wrong with Sir Francis Bendibow——”

“ I am sure of that ! ”

“ Well, I know nothing about it ; but what everybody does know

is that Perdita is Bendibow's adopted daughter, and is under a certain obligation——"

"He did not treat her well: she says so herself."

"In society, Marion, there is a convention to take certain things for granted. The conventional supposition in this case is that she is under obligations to Bendibow. Why should she create a scandal about a matter that was settled, for good or evil, a score of years since? Who would gain by Bendibow's being shamed? Those letters either contain the evidence of his shame, or they do not; and, in either case, it is reasonable enough that she should wish to let them alone."

"I do not believe that that is her reason for refusing this legacy."

"What in heaven's name can it be, then?"

"I think she . . . But that is not what I want to say. Philip, do you mean to take this money?"

"If no one contests my right to it, I certainly shall," said Philip, with his chin in his hand.

Marion's heart beat hard. She had anticipated reluctance on her husband's part, but not opposition so determined as this. She hesitated what to do next. That Perdita did not really doubt Grantley to have been her father, Marion was of course convinced. The recollection of what had passed on that tragic morning when the Marquise had called her in to witness Bendibow's exposure, and Marion herself had interposed, and with difficulty saved him, was only too distinct in her memory. Perdita had believed then, and there was no reason why she should doubt now. But, on the other hand, Marion herself was responsible for Perdita's present attitude. Marion had asked her not to open the packet, and Perdita—certainly from a generous motive—had complied. In the exultation of that moment, the two women had kissed each other. Which had maintained the more consistent course since then—Perdita or Marion? Logically, Perdita. She had agreed, for Bendibow's sake, and at Marion's request, outwardly to ignore the fact that she was Grantley's daughter: and how, on that understanding, could she act otherwise than she had done? There was no logical answer to this question; on the contrary, it was Marion who had receded from her position. And yet Marion could not admit herself unjust. Though Perdita had not altered her course, Marion was persuaded that she had changed her motives in pursuing it. It was no longer compassion for Sir Francis that swayed her, but designs upon Philip. It would be impossible to describe, or even to know, by precisely what means Marion had arrived at this conclusion. It is instinct, not reason,

that warns a woman when to be jealous of another; and it seems as if she could perceive the purpose in the other's heart, even before it has declared itself in any overt act. In such circumstances, however, the injured woman can do nothing but affirm her conviction: by the magnetism whereof, and by no other means, can she hope to influence the man. But he can always out-argue her, if he chooses.

Though she felt the premonition of defeat, therefore, Marion resolved not to give up the contest: the spirit of her father was aroused in her, and she was strengthened by the thought that she was fighting not only for herself, but in behalf of Philip's higher self likewise.

"Don't you think there is something more than legal rights to be considered?" she said at last. "Would you condescend to accept favours from a woman like Madame Desmoines?"

"I know nothing of Madame Desmoines that puts her below the level of other people: but there is no favour in the matter. She is doing what pleases her best, without any reference to me: and I simply accept things as they are."

"She means to put you under an obligation to her, and to use the power that will give her. You say you can read the human heart, Philip: can't you read so easy a thing as that? That was the reason I would not take the money; and if I would not, much less should you."

"Was that your reason? It was not the one you gave, if I remember right."

"I believed, then, that you were generous enough to spare me the affront of such an explanation," said Marion haughtily. "But after all, it is more for your sake than mine . . . it would look better for me to be obliged to her, than for you. And for you to accept what I refused is as much as to say that you disapproved what I did."

"Well, perhaps I did. It doesn't follow, because I let you have your way, that I thought you were acting sensibly. And 'tis certainly no reason why you should force me to make another such sacrifice on my own account. There's a limit to everything!"

"It is the same now as it was then. And if you agreed from love of me then, you must love me less now, since you refuse."

"This is too absurd, Marion. For some cause or other, or for no cause at all rather, you are jealous of Madame Desmoines. If I were to yield to you in this, it would be as much as to say that your jealousy had some foundation. It has none, and I won't do it. You have no right to say that I don't love you. If you were generous, you would not say it."

"I don't say that you care more for Madame Desmoines than you do for me, Philip; if I thought that, I would never trouble you again, in any way. But I know that she cares for you, and you might know it, too, if you would. I saw her face while she was talking with you at the party to-night. I could tell what was in her mind. Men never seem to see those things: though they get the benefit of them!"

"'Tis no use talking with you till you get your senses back, Marion: and this is not what we set out to discuss, either."

Marion had something more to say about Madame Desmoines, but she managed to keep it back. She knew that if her temper got the mastery of her, there would be an end, not only of this discussion, but of many other things also; of her love, and, practically, of her life. She feared lest she might hate her husband; and she feared still more lest she might despise him. She resumed in a voice low and shaken by the struggle of emotions in her heart:

"Let all the rest go; and why should you take this money, Philip? Do we need it more than we did yesterday? But for this strange chance, you would never have thought of it again. We have more than enough already for two years to come, if we live with any sort of economy. Thousands of people marry every day on less money than you have at this moment, and without your means of making more, and they succeed and are happy. There is nothing that makes a husband and wife love each other more than to fight their way through the world together—triumphing together, and suffering together, if need be; but to feel that we are in the least dependent will drive us more and more apart. Oh! I am sure this money will only be a misfortune and a misery to us! Good cannot come of it. And what if we are poor? I have been poor all my life, and yet you married me!"

Philip listened to all this with a secret feeling of relief. Marion had now taken the ground where he was strong and she was weak. In depth of passion and fire of temper, he was less than her equal; and had she carried on her attack with those weapons, she might have come out victorious; for he was not prepared to go such lengths as she would have gone, had she given herself rein. But women like Marion are seldom aware of their own most formidable powers, and hence are so often worsted by those who are really less strong, but more ingenious and adaptable than they.

Moreover, there was on Philip's side both human nature (as moral frailty is called in such connection) and a good deal of reason. In allowing Marion her will on the previous occasion, he had stretched

abnegation to pretty nearly its limit in his case; and had so much the less at his disposal for the present emergency. If he had permitted himself to grumble his fill in the first instance, he would not have had so much stored discontent on hand for the second; and when he found Marion in the position of standing upon what she had gained and demanding as much again, he defined his objections as follows:

"There ought to be no question about our love for each other, Marion; we settled that once for all, before we were married. And your pride and prejudices are not involved, since it is to me and not to you that the legacy is now offered. I gave you leave to manage your own affairs as you judged best, and 'tis only fair you should give the same liberty to me. Now, it is quite plain that Grantley meant one or other of us to have this money; and if the wording of the codicil was made to apply also to Perdita, it was only lest the money, in the last resort, might not have to be thrown into the gutter. If I were to take the stand you wish me to, I should only be putting both you and myself in a childish and sentimental light. Everybody would laugh at us. Besides, there is the practical point of view. What right have we, in face of all the accidents and vicissitudes of life, to reject such a windfall? I might fall ill to-morrow, or my next poem might be a failure: we shall probably have children, and they must be provided for as well as ourselves. And 'tis a great thing, Marion, for a man who aspires to be a poet, to be put a little above the necessity of working for daily bread, and living from hand to mouth. Then again, 'tis my right as well as to my advantage to take a position in society suitable to the name I bear. A fortune, my dear, is something real and enduring; but sentimental scruples and prejudices pass away."

Philip's mind, during this harangue, was less comfortable than his language. Whatever reason might say, he felt that he was taking a lower level than Marion. He was too much of a poet not to be conscious of the unloveliness of the cause he was called on to defend. And now, at this last moment, there was the germ of a wish in his heart that Marion might somehow have her desire, and this load of pelf tumble away from both of them, and be forgotten.

But Marion, who had been sitting with her face averted and her cheek leaning on her hand, now turned toward him with a look in which pain mingled with a curious smile.

"Don't say any more, Philip," she said, with a sort of dreary lightness. "I would rather do all you wish than hear any more reasons. Everything shall be as you please: I am your wife, and

since you won't be what I want, I will be what you want, and there's an end of it! It will be easier for me, now the pinch is over, and I hope 'twill be pleasanter for you. It's better, I suppose, that we should understand each other now than later. Heigho! Well, I'm sleepy. To-morrow we'll begin to be rich; and let us see who does it best!"

CHAPTER XXVII.

THE Marquise Desmoines had, at the end of the summer, relinquished her abode in Red Lion Square and gone to live in more luxurious quarters farther west. Apparently, her experiment of life in London had pleased her, and she meant to have some more of it. She had remained in town during the greater part of the dead season, giving the house-furnishers and -decorators the benefit of her personal supervision and suggestions. The lady had a genius for rendering her surroundings both comfortable and beautiful: even more, perhaps, than for enjoying the beauty and comfort when they were at her disposal. She appreciated the ease and ornament of life with one side of her nature; but another and dominant side of it was always craving action, employment, and excitement, and, as a means to these ends, the companionship and collisions of human beings. Her imagination was vivid, and she was fond of giving it rein, though she seldom lost control of it; but it led her to form schemes and picture forth situations, in mere wantonness of spirit, which, sometimes, her sense of humour or love of adventure prompted her to realise. At the same time, she was very quick to comprehend the logic of facts, and to discriminate between what could and what could not be altered. But it was her belief that one of the most stubborn and operative of facts is the human will, especially the will of a woman like herself; and upon this persuasion much of her career was conditioned.

After her house was finished, and she established in it, and before the return from their wedding-trip of Mr. and Mrs. Philip Lancaster, Perdita spent most of her time in retirement and great apparent serenity. She rode on horseback a great deal, and saw very little company. Indoors, she occupied herself ostensibly in arranging flowers and in music. Old Madame Cabot, her respectable and dreary female companion, had seldom known her mistress to be so composed and unenterprising. All the Marquise seemed to want was to be let alone: she had developed a novel passion for meditation. What did she meditate about? To judge by her

countenance, about nothing very melancholy. To be sure, although no one could express more by her countenance than the Marquise Desmoines, it was rash to make inferences from it to her mind. It might well be that, had she wished to indulge in lugubrious thoughts, she was not without means of doing so. She had been in contact with some tragic experiences of late: and her entrance upon the estate of widowhood had placed her at a turning-point in the path of existence; a place where one must needs pause, to review what is past and to conjecture or to plan what may be to come. Such periods are seldom altogether cheerful to those who have passed the flush of their youth. It cannot be denied, moreover, that Perdita had undergone an unusual moral stimulus at the time when she and Marion met over the murdered body of Charles Grantley; and that stimulus had been followed by consequences. But did it mark a permanent new departure? For a character like Perdita's, was anything permanent except the conflicting and powerful elements whereof the character itself was composed? Were evil and good anything more to her than different ways of keeping alive the interest of life? Whoever is virtuous, whoever is wicked in this world, still the balance of wickedness and virtue will remain broadly the same. The individual varies; the human race continues unaltered. We grow and act as nature and circumstances determine; and sometimes circumstances are the stronger, sometimes nature.

There were phases of Perdita's inward existence with which Madame Cabot was probably unacquainted. The Marquise wanted several things, and would not be at rest until she got them; and, by that time, new objects of desire would arise. It may be that she had not defined to herself exactly what she wanted, or that she merely wanted to achieve a certain mental or moral situation and sensation, and was indifferent by what methods she achieved it. The truth is, a woman like Perdita is as dangerous as fire—resembles fire in her capacities both for benefit and mischief. And if Madame Cabot could have beheld her at certain times, in the solitude of her room, pacing up and down the floor with her hands behind her back; or cutting a sheet of paper into shreds with a sharp pair of scissors; or lying at full length upon the cushions of a lounge, with her hands clasped behind her head, her white throat exposed, and her dark eyes roving restlessly hither and thither; or springing up to examine herself minutely in the looking-glass; or talking to herself in a low, rapid tone, with interspersed smiles and frowns;—if Madame Cabot could have seen all this, she might have doubted whether, after all, the Marquise was going to settle down into an uneventful, humdrum existence.

The party at Lady Flanders's was Perdita's first prominent appearance in London society, and it seemed also to introduce a change in her mood. She was now less inclined to shut herself up alone, more talkative and vivacious than she had latterly been. She kept Madame Cabot in constant employment, though about nothing in particular, and addressed to her all manner of remarks and inquiries, of many of which the dreary old lady could not divine the drift, and almost fancied, at times, that the Marquise must imagine her to be some one else; especially as Perdita had more than once exclaimed, "But after all you are not a man!" One afternoon, when Perdita had been in exceptionally good spirits, the servant announced Mr. Merton Fillmore.

"Mr. Fillmore?" she repeated. "Well . . . let him be admitted."

He had already called upon her several times, always with more or less reference to business matters, and there was a fair degree of familiarity between them. Perdita had not been insensible to the keenness and virility of his mind and the cultivation of his taste; and for this and other reasons she was disposed to have a liking for him. As he entered the room she rose to receive him, with a smile that might have conferred distinction on a night-watchman. Fillmore, on his part, seemed also in a very genial frame of mind, and they began to chat together most pleasantly.

"Now, I hope you have not come about any business," said the Marquise, after they had touched upon Lady Flanders and kindred topics.

"You are not in a business humour?"

"I don't like business to be my rival."

"Do you regard as a rival the key that opens the door to you?"

"Sir, I disapprove of keys altogether. If my door is closed, no key can open it; and if it is open . . ." She made a gesture with her hand.

"I shall take you at your word," said Fillmore quietly, after he had looked at her for a moment. There was something in his tone that conveyed more than any amount of conventional thanks and compliments. "As for business," he continued, "you have already put that away from you by force and violence."

Perdita laughed. "I have behaved like a fool, haven't I?"

"That is what people would say."

"What do you say?"

"I think you were wise."

"Not even generous?"

"To be generous, one must sacrifice something."

"Well?"

"It is true you have sacrificed your curiosity."

Perdita laughed again. "And that is wise rather than generous, you think? But my curiosity might come to life again some day. By the way, have you any news of Sir Francis?"

"People say of him that 'he will never be himself again.' Perhaps that would not be a very hard saying for the best of us. But Bendibow is certainly suffering. He looks old and haggard, and his mind seems out of poise. He is living at his Twickenham place: I have seen him only twice. 'Tis impossible to lift him out of his mood: you cannot fix his attention. I wished to make him agree to the appointment of some capable man to take charge of the bank, but he would listen to nothing. The servants say he is constantly muttering to himself, when he fancies he is alone."

"Can Sir Francis Bendibow go mad because his son is dead?" interrupted Perdita, leaning back on the sofa and looking at Fillmore with eyes half closed.

"He was very fond of the boy," replied Fillmore, after a pause: "and possibly the circumstances may have been more disturbing than is generally supposed. 'Tis said that he manifests some peculiarities—" he checked himself.

"Go on!" said Perdita. "My imagination is worse than my curiosity."

"He disappears for several hours at a time, generally after dark, without mentioning where he is going."

"So you consider me wise in not sending for the packet and opening it?"

"Why should you?"

"If I should, some time, would you advise me?"

"I would rather not."

"By the way, talking of the packet, how are our friends the Lancasters getting on?"

"Rather brilliantly, I should judge. Mrs. Lancaster, especially, seems to accept her changed circumstances very cordially."

"I am glad to hear it," said Perdita, manifesting interest. "She was reluctant enough at first."

"She has a singular character; not easy to fathom. Mr. Grantley probably understood her better than most people. She may have been unwilling that her husband should appear to be dependent on her. At all events, they are making preparations for a fashionable appearance in society: Lancaster's success is assured already;

and for aught I know, his wife may have it in her to make an even greater success than he."

"What are they doing?"

"I understand they have rented a house in a desirable quarter; some additions are to be built to it, and alterations made; and then it will be furnished as taste and Providence may permit. Meanwhile, as of course you are aware, 'Iduna' continues to sell new editions, and all the omens are propitious."

"What do you think of 'Iduna'?" asked Perdita carelessly.

"It is strong—too strong, I should fancy, for a bridegroom."

"More knowledge of love than a bachelor had a right to have—is that what you mean?" inquired Perdita, arching her brows.

"There is such a thing as understanding a passion too clearly to feel it," Fillmore answered. "You may take up a matter either intellectually or emotionally, but you will seldom be equally strong in both directions."

"But the pleasure of emotion is only in feeling. It is blind. Intellect is sight. Sight often makes sensation more pleasurable."

"A man who is in love, madame, wishes to do something more than to enjoy his own sensations; he wishes to have them shared by the lady of his choice. To insure that he must, at least, love with all his strength. And, as a matter of experience, there is little evidence to show that the best poets of love have also been the best lovers. They filter their hearts through their heads, so to speak; they imagine more than they can personally realise. There is Byron, for instance——"

"Yes; I saw him in Italy: he is an actor, who always plays one rôle—Byron! But he is not like others. A poet of love . . . if he is not a good lover, it may be because he never happens to meet a woman lovable enough. But when he does meet her . . . it would be heaven for them both!" The Marquise seldom spoke with so much fervour and earnestness.

Fillmore looked at her intently, and his ordinarily unimpassioned face slowly reddened. He pressed one clenched hand strongly into the palm of the other.

"I have one argument," he said, "to prove that poets are not the best lovers."

"Arguments don't always convince me. What is it?"

"I am no poet myself."

"Is that your argument?" demanded Perdita after a moment.

"Yes."

"How would you apply it?"

Fillmore, for once, hesitated. A great deal depended, for him, on what he might say next. Perdita was looking extremely lovely; yet she had not precisely the kind of expression that he would have wished her to have at this moment. But the man had made up his mind, long ago, as to what he intended to do, and he reflected that the mood of the moment would not make much difference in the long run. Success in his project was either possible, or it was not; but, at all events, a temporary rebuff, should that happen, was not going to discourage him. So he manned himself, and said, quietly and firmly :

"Though I am no poet, no poet could love you more than I do."

Perdita was perfectly still for a moment ; not a nerve vibrated. She was instantly aware that she would on no account accept Fillmore's offer ; but it had been entirely unexpected, and she wished to give the surprise an opportunity to define its quality. It seemed to her not altogether disagreeable, simply as a betrayal of Fillmore's state of mind toward her. She was pleased to have won the love of a man of his calibre ; and she had the good sense, or discernment, to perceive that he loved her for herself, and not for any intrinsic advantage that the possession of her might afford him. She also saw that he was intensely in earnest. A less self-confident and victorious woman might have felt some consternation at the prospect of conflict which the situation contained : but Perdita, on the contrary, felt only exhilaration.

"When we first met," she said at length, "you remarked that I would make a good lawyer. You understood me better than than you seem to do now."

Fillmore shook his head.

"I might make a good lawyer," Perdita continued, "but I should make a very bad lawyer's wife."

"I am a man as well as a lawyer," said Fillmore, bending a strong look upon her.

"And a gentleman as well as a man," she added with a gracious smile. "In fact, sir, if you were less agreeable, I might love you ; but as it is, I like you and enjoy your society much too well for that. I would rather hate you than love you : and as for marrying you—pardon me for being the first to speak the word, but widows have privileges—I would rather love you and have you jilt me !"

There was a certain delicate comicality in Perdita's way of saying this, which, though it implied no slight to Fillmore, was more disheartening than the most emphatic and serious "No" would have been.

"I had been flattering myself with the idea that you looked upon me more as if I were a man than a woman," she continued. "Any one can fall in love with a pretty woman; and there is less distinction in being loved by a man like you, than in having you treat me as a friend and an equal—if you would do that!"

"You are the only woman who has ever been a woman for me," replied Fillmore, with passion. "The love both of my youth and of my manhood is yours. I will do anything to win you. I will never give you up."

"Oh, I can easily make you give me up," said Perdita with a sigh.

"How?"

"By letting you know me better."

"You do not know me!" he exclaimed.

"I shall always love some one else better than you."

"Who?" demanded he, turning pale.

"Myself!" said Perdita, with a laugh.

"You can be my wife, nevertheless."

"That I never will," she said, looking him in the face.

He rose from his chair. "I will never give you up," he repeated. "I will go now. You will let me come again?"

"As often as you like: I am not afraid of you," was her answer.

Fillmore bowed and turned away. She had had the advantage so far. But he loved her thrice as much as he had done before, and he had never suffered defeat in anything he had undertaken. She neither loved him nor feared him?—But she could be his wife, nevertheless; and he would do anything to win her.

(To be continued.)

EGYPTIAN DERVISHES.

“ . . . What if to THEE, in THINE Infinity,
 These multiform and many-coloured creeds
 Seem but the robe man wraps as masquer's weeds
 Round the one living truth THOU givest him—THEE?
 What if these varied forms that worship prove
 (Being heart-worship) reach THY perfect ear
 But as a monotone, complete and clear,
 Of which the music is (through Christ's Name) Love?
 For ever rising in sublime increase
 To—'Glory in the Highest—on earth peace.' ”

NOTHING can be more strangely diverse than the impression produced on the mind by the motley faiths of Africa, to one coming direct from the comparative uniformity of worship in Europe, or to one returning from India—a land which (in addition to harbouring all these) claims thirty-three million deities of its own. To the former, the medley of Mahommedans and Jews, Copts, Armenians, Greeks, and all other Christian varieties, seems so strangely incongruous—while to the latter, the absence of idolatry, and the knowledge that all these nations are worshippers of One God, seems to raise them to one broad level; and though, practically, we know too well how they hate one another, and wrestle, and jostle, and fight for the corpse of truth, still, we remember that one golden thread does run through all their creeds; and though the land is divided in its observance of holy days—Friday, Saturday, or (in a minimum degree) Sunday, the mere fact of obedience to the same commandment seems something of a bond, which, theoretically, should link them all together.

As a mere question of scenic effect, it must be confessed that these more solemn forms of worship, and the abhorrence of all manner of graven images, do disappoint the eye which has become accustomed to grotesque and curious forms, masses of rich carving, and gaudy processions; and has forgotten its first feeling of disgust and horror at the puerile absurdities of a gross idolatry.

As you wander about in Cairo every new turn brings you to the door of one of the four hundred mosques, which seem to take up a vast

proportion of every street ; their domes and minarets are all more or less diverse in form and decoration ; most of the minarets are octagonal ; having many galleries, and richly moulded balustrades. Often the walls bear inscriptions from the Khoran, and very intricate arabesques. Still, on the whole, there is a great sameness in them, and the eye wearies of the perpetual lines of red and white paint. The interiors are, also, much alike, simple, solemn, silent, and for the most part carpeted, instead of the polished marble of the Indian mosques. On one side, a deep recess, called the kiblah, marks the direction of Mecca, and shows the devout Mahommedan where to turn his face. There is also a mimbar, or pulpit, where lies a copy of the Khoran, whence the Imam expounds to the faithful.

All the "show" mosques, which are frequented by European visitors, keep a supply of woollen overshoes ready, to slip over their dusty boots, which is considered equivalent to removing them, and more convenient ; not a *very* "outré" mark of respect to Eastern customs ; nevertheless, one which, with the rude British habit of despising everything foreign, occasionally gives half-fledged lads an excuse for "chaffing" quiet, dignified greybeards to an extent very annoying to witness. It is never pleasant to see your countrymen assuming an utterly false position, and certainly no more perfect type of Dignity and Impudence could well be found, than occasionally shocks both eye and ear, when a wretched little Briton (too often possessed of snub features, and clad in ill-cut broad-cloth) presumes to give himself consequential airs with these stately Orientals, who invariably treat him with the courtesy of conscious superiority. But if this sort of thing is disgusting on ordinary occasions, it is tenfold worse when you come across it in one of these grand, solemn mosques, for it really seems as if travelling Britons could not recognise "holy ground" anywhere, save in their own chapels.

Of course, the turbaned men invariably expect a tip ; but for that matter, what would the verger of a cathedral think if you failed to produce this customary tribute ? After all, the petition for "Backsheesh" is only equivalent to the old English cry of "Largesse ;" and though that word may now be obsolete, the custom still prevails, and the hand goes to the pocket just as often in the West as in the East, and for much larger coins—the only difference lies in not being asked.

One of the mosques to which unbelievers are not admitted, is the Mosque of Flowers, where a carpet of superb embroidery of gold and silks is annually worked with infinite reverence, and is sent to Mecca

as a covering for the Tomb of the Prophet. Though commonly called "The Holy Carpet," this Kiswet e' Nebbee is really a curtain. It is a hanging of rich silk, on which sacred sentences in Arabic are embroidered in gold, and it is designed as a lining for the Káaba, which is the temple of Mecca, the Holy of Holies of the Mahommedan world. I believe that Roberts (who, when painting in the East, adopted Eastern raiment) was one of the few foreigners who has ever found his way into this most holy workroom; but his presence being detected, he was compelled to fly for his life and was considered fortunate, indeed, to have escaped paying the penalty of his rash curiosity. When the sacred carpet is to be despatched, about forty thousand pilgrims accompany the offering, which is borne by a sacred camel, led by a very holy Dervish, "the great Hadji."

This vast concourse of people encamp on the plain, beside the Mosque of Hassan; then passing through Bab e Nusr (the Gate of Victory), the Pilgrimage of the Haag starts on its long toilsome journey.

Halting first at Birket el Haag, the lake of the pilgrims, they make their way by slow marches till they reach the peninsula of Mount Sinai, and thence travel through Arabia till they reach the Holy City of Mecca, where it is theoretically supposed that seventy thousand pilgrims, representing all the Mahommedan nations, ought to assemble to witness the ceremonies of this great festival. It is said that, should the faithful fail to muster the requisite number of worshippers, the angels assemble to make up the missing number.

The pilgrims march in procession seven times round the Káaba, and kiss the most holy black stone, which was held sacred by the Arabs long before the days of Mahomet, who deemed it prudent to adopt it, and to cause it to be built into the corner of this most sacred shrine.

One curious ceremony is practised the day before the pilgrims reach Mecca. They ascend the sacred mount Arafat, where they offer sacrifice, to commemorate the sacrifice by Abraham of the ram in lieu of his son Ishmael (not Isaac). Then coming down from the mountain they proceed with their eyes closed, or blindfold, to pick up seven-times-seven small stones, which at nightfall they cast upon "the tomb of the devil."

Next day they proceed to Mecca, where they halt for a fortnight; then they start on their return journey to Cairo, where they ought to arrive on the sixty-seventh day from the date of their departure, namely, on the birthday of the Prophet, when the whole city holds

festival, and seems as if it were the scene of a great fair. This is the only occasion on which all Egyptian women, however high their station, are suffered to appear in public, a permission of which a vast number take advantage, and come out in their festival robes and yashmaks, all of white.

The returning pilgrims bring back to Cairo the doubly sacred hangings which have adorned the Káaba for the last year, and which are eventually cut up into shreds for distribution among the faithful.

The great Dervish who leads the procession is held to be a person of such wondrous sanctity, that even a blow from his horse's hoof is an honour worthy to be desired; and when a vast crowd have assembled to witness the ceremony of the Doseh, or Trampling, a passage about six feet wide is cleared, down which comes a rushing torrent of young dervishes, swaying from side to side, drunk with fanaticism, and gasping Allah, Allah!

Suddenly they all stop and throw themselves flat on their faces; a living pavement, which, however, twitches convulsively while the miserable enthusiasts go on violently rubbing their noses in the dust, as their heads jerk from side to side, while they continue to reiterate the Name of God. Meanwhile the fanatical infection spreads, and many of the bystanders fall prone on the ground with the rest of the grovelling herd. Then, amid dead silence, the great Dervish, riding a powerful horse, surrounded by about a dozen followers, passes over the prostrate bodies, and as the pain of that heavy tread is added to the previous excitement, some writhe in agony, some swoon, some are in fits, while still with foaming lips they strive to murmur the praise of Allah.

This year a totally new feature was added to the first scene in this strange ceremony, namely, the marked honour paid to the Holy Carpet by the British authorities at Cairo—marks of official respect by the followers of the Cross, to one of the most strangely superstitious observances of the followers of the Crescent, which might well call forth wondering comments from all present, and from all who subsequently heard thereof, though, from a political point of view, well calculated to assuage the religious rancour of the Mahomedan population, and to prove to them how it is that so vast a number of their co-religionists are content to live peaceably under the British flag, and to serve a Christian sovereign in time of war.

Never within the memory of living Egyptians has the ceremony (which commemorates the tragic pilgrimage of Zobeida) been celebrated with such splendour as this year, when "the infidel dogs" rule supreme in Cairo. On the morning of October 5, the Holy Carpet

was carried with all possible honour to the great mosque, where the accustomed religious service was performed. It was then placed on a gorgeously caparisoned camel, beneath a velvet canopy called a Mahmel, heavily embroidered with gold.

Behind it followed twelve other camels, on one of which rode the Great Dervish, in charge of the precious treasure, a wild-looking being, with long unkempt locks streaming on his bare shoulders. He was naked from the waist upwards, and seemed to have been selected for his magnificent figure. His head was in ceaseless motion, constantly tossing from side to side.

On the other camels were mounted musicians and singers, who indulged in most unmelodious discords.

The caravan made its way to the Mahmoudieh Square, where a large force of British troops were drawn up. Seven times it made the circuit of the Square, doubtless to symbolize the seven mystic sunwise turns to be performed by the faithful around the Káaba at Mecca. From the great citadel overlooking the scene a salute of twenty-one guns was fired, while the procession advanced to the spot where the Khedive and the Sheik-ul-Islam stood, waiting to kiss the tassel of the Holy Carpet, and present their offerings in money.

On the right hand of the Khedive stood the Duke of Connaught, on the left Sir E. Malet and Sir Garnet Wolseley.

The British infantry, and all the Mahommedans in the Indian native infantry, and native cavalry, then formed in long files, and started as the vanguard of the procession, which slowly wound its way through the narrow crowded streets of the native city, the Indian regiments who guarded the sacred offering during its two hours of struggling along narrow thoroughfares, receiving their full share of admiration from the Mahommedan population; their proud, soldierly bearing contrasting strangely with that of the average Egyptians who composed the greater part of the multitude.

Leaving the narrow streets, the procession emerged into the more open ground of the Esbekieh, and so made its way to the railway station. For another novel feature of the great ceremonial of 1882 was, that instead of proceeding to the Holy City by the usual pilgrim route, a special train was appointed to convey the carpet, the dervishes, and the camels to Suez, whence a special steamer was to convey them to Jeddah. This unusual course is said to be a precautionary measure, as it was feared that the hordes of wild Bedouins, well armed with Remington rifles, might forget their duty to the Prophet, in the temptation of looting his carpet.

So a gaily decorated truck was prepared to convey the gifts of the Khedive to the holy shrine.

In approaching Cairo, the prominent object which attracts our notice is Mohammed Ali's beautiful white mosque, which is built within the Citadel, above whose mighty ramparts tower the great dome and tall minarets. This noble mass of masonry stands on a detached rock, 200 feet above the level of the Nile—a spur of the Mokattam range, which stretches away in the background.

As these craggy and sandy hills completely overlook the Citadel, I at once decided on making my way thither, as being unmistakably the finest sketching ground; so, ignoring all the remonstrances of my dragoman, who suggested all manner of official opposition, I ventured to lead the way to the summit of the crags, whence we obtained so magnificent a view of the city and of the great desert outstretched beyond, traversed by the silvery Nile, with its ribbon-like edging of vivid fertile green, as amply repaid us for the exertion.

Right before us rose the mighty Citadel, which is said to have been restored by the great Saladin about the year 1176. All around it lies the city, with its forest of mosques and tall minarets.

The city is enclosed by battlemented walls, outside of which lie great tracts of desolate suburbs—vast mounds of city refuse, and countless ruined tombs and minarets standing in the desert; the mosques having in many cases disappeared, as if destroyed by violence, while these more fragile minarets remain. Even those that remain are allowed to crumble away piecemeal, no modern Egyptians caring to prop up their fine old ancestral temples, or finding in them any interest either as works of art or matters of history; the name of the greatest caliph or of the meanest slave being alike forgotten. Too often the precious ruins are merely treated as quarries, for there are Goths in all lands.

Among the most striking of these ruins, are the long line of arches of a great aqueduct; and winding beneath these we noted other lines of small moving creatures, which proved to be long strings of camels, their diminutive size affording a good scale by which to estimate the great buildings among which they moved.

This Citadel was in 1811 the scene of the massacre of the last of the Mamelukes by Mahomed Ali, a deed of base treachery, but of consummate and successful policy; a *coup d'état*, in fact. You remember how the Mamelukes had risen from the position of slaves to that of sultans. This Circassian dynasty produced a race of military princes, who waged war with the Ottoman sultans. The last but

shed blood abundantly¹ upon the earth. In this instance, even the building of the great Mosque was a work of oppression and wrong. Among the hundreds of hard-worked and unpaid fellahs, there were bands of young girls of from nine to thirteen years of age, divided into companies of about thirty, each marshalled by a brutal fellow carrying a heavy koorbash with which he dealt cruel blows right and left, whenever the weary, jaded creatures paused for a moment. And all the time they were compelled to sing in chorus—a ceaseless joyless song, sung by unwilling lips and sad hopeless hearts.

With the exception of the domes, the mosque is built entirely of white stone, and the interior of Egyptian alabaster—slabs of motley yellowish white—which were brought from a quarry near Benisoueff on the east bank of the Nile, two days' journey in the desert. The arcades, the richly ornamental pillars, the beautiful fountain in the outer court, for ceremonial ablutions, are all of the same material. The interior is very fine; something like St. Paul's, with four small domes clustered round the great central one. Very large, very solemn, very silent; the foot moving noiselessly over rich Turkish carpets, while here and there some venerable patriarch kneels in prayer, seeming wholly abstracted from the visible world. It is a temple that you feel to be meet for its object. But if you come back in the evening, to see the Dervishes go through their curious functions, you may be somewhat *désillusionné*, as we were.

Meanwhile, we went on to look at Joseph's Well—not the Joseph of Scripture, but the Sultan, Yussuf Ben Sala Eddin, whom we commonly call Saladin. He bored this well through nearly 300 feet of solid rock, so as to supply the Citadel with water, should the supply from the Nile aqueduct be cut off. Winding round and round the shaft is a spiral gallery where mules and bullocks ascend and descend to the water-level. Its incline is so gradual that, if you wish it, you may ride down on a donkey. The width is about six feet by seven, cut in the solid rock like a huge corkscrew. It is lighted by openings into the great shaft.

The method of working this great well is unique. As it would be impossible to raise the water to so great a height by one shaft, the shaft is made in two divisions, the lower one being a little to one side. Thus two sets of oxen are continually working; one set at the surface of the ground, the others 165 feet lower; while the water lies 132 feet lower still. It is raised by means of an endless double-rope carrying innumerable earthen jars, passing over two wheels, at the top and bottom. This is set in motion by the oxen walking

¹ 1 Chron. xxii. 8.

to the artistic eye. These are real Bedouins—men whose glory it is to have no certain dwelling-place—to whom a halt thus near a city savours of danger, so that they long to be up and away, back in their own free desert, where the black tents lie and the homely home-welcome awaits them; where at daybreak they hear their sheik call the solemn hour of prayer, and every man kneels at the door of his tent, with his face towards Mecca; back to the old patriarchal life that has changed so little, while the wave of change and progress has swept over all other lands.

There is still the old Bedouin honour in observing the wild rule of the desert. Should a wayfarer's camel sink and die beneath its burden, the owner need only draw a circle round the dead beast and go on his way, secure of finding his goods untouched when able to return and remove them. And not only is the inviolable reverence for the hospitality of the tent, when once granted, fully maintained, but we are even told by travellers that they have occasionally left a tent in the desert for upwards of a twelvemonth, and returned to find that not one cord or one peg had been touched.

There have even been cases in which travellers, who, according to the rules of the desert, had been quite legitimately robbed, have, by a sudden appeal to the honour of their captors, obtained not only their freedom, but a restitution of their stolen property. Such was the experience of Sonnini, a scientific French traveller, who, when crossing the desert near the Natron lakes, was surprised by a troop of about a hundred well-mounted Bedouins. In presence of such a force, his own small party of six, two of whom were Egyptians, were altogether helpless. They were at once disarmed and stripped of their money, arms, provisions, and most of their clothes. The robbers then spread out their booty on the sand and proceeded to divide it among themselves.

Meanwhile their Arab guide, Hussein, himself a Bedouin, though of another tribe, addressed a pathetic appeal to the robber chief. "Arabs," said he, "you have stripped a man entrusted to my protection, and for whose safety I will stake my life; a man with whom I have eaten, who has slept in my tent, and has become my brother! Never again can I enter that tent; never again dare I return to my camp; never more look upon the face of my wife or my children. Arabs! take my life, or restore to my brother every article of his property." As he spoke, he snatched back his gun from the Arab who had first seized it, and levelled it at the chief, determined to shoot him in case of refusal, though well aware that his own life would instantly be forfeit.

His brave bearing, combined with the pathos of his words, touched these sons of the desert. The sheik consented that everything should be restored, and though some of his followers sorely grudged giving up their spoils, every article was delivered up, with the exception of a considerable sum of money, which had been abstracted from M. Sonnini's purse, and divided by the Arabs among themselves. The sheik was very particular in enquiring whether the full sum had been restored, but the traveller deeming himself fortunate to have got off so well, assured him that he had received everything right.

Not content with this act of restitution, the Arabs now became exceedingly cordial. The sheik insisted that M. Sonnini should ride his (the sheik's) horse while he walked beside him. The same compliment was paid by other Arabs to his companions, all of whom thanked Heaven that no blood had been shed, at the same time blaming the foreigners for their temerity in exploring the desert, and thus, as it were, offering themselves as fair objects for pillage.

As the sun set, the whole troop of Arabs knelt in devout worship in that bleak desert, having previously rubbed their arms and legs with its dry sand—a substitute for ceremonial ablutions, specially prescribed by Mahomet, who (himself an Arab) foresaw how often his followers would find themselves in the parched desert, and be unable to procure water for the washing which must invariably precede prayer.

The amazing power of endurance of these Bedouins would astonish even a Highlander, more especially their almost incredible keenness of sight. Those who possess camels are wealthy enough, as these supply them with all things needful—milk, cheese, fuel, raiment, tents; even meat when they can afford to slaughter one of the herd. But many of the tribe are often miserably poor, and find enough to test their faith in the struggle for daily bread—a faith, however, which rarely seems to fail. . . . One of them was asked how he managed to live, whereupon he displayed his strong white teeth, saying, "He Who created this mill can easily supply it with material to grind."

At the time of my visit to Cairo, these men, like all their neighbours, were rigidly observing the long forty days of Ramadhan—a fast so real that, from sunrise to sunset, not one crumb of bread, one drop of water, one whiff of soothing smoke, may pass their lips. Hard as this is at any time, conceive what it must be when working in the burning sun; for this holy season is an exceedingly movable fast, and sometimes occurs late in the spring. Still, the self-indulgent

mortal who would infringe the law would be held in sore contempt by men whose minds so thoroughly rule the poor body, and with such tyrannous empire. Imagine how they must despise our easy-going, comfort-loving lives. Imagine, too, how sore it must be for Mahommedan servants, under a burning Indian sun, to minister to our luxuries, while they themselves are keeping such a fast as this. The only exception to their law is in favour of travellers and young children, the latter being allowed to eat fruit, such as dates, or sugar-cane.

Of course, these poor hungry creatures become highly irascible, and the peace of the domestic hearth is liable to be endangered. It is said that more divorces for incompatibility of temper occur during the Ramadhan than in all the rest of the year. It seems that in Egypt divorces are allowed on the most trivial pretexts. A wife may be returned to her father without any reason whatever being assigned, and her husband need only allow her maintenance for three months, at the end of which she is free to marry again. Should he, in the mean time, wish her to return, she must do so, and this little matrimonial difference may be repeated a second time. But if a third disagreement arise, the wife may not return till she has actually married another husband, after which she may, if she chooses, leave him and return to number one! Of course, this easy state of law leads to very rapid varieties in domestic establishments, more especially as four wives at a time are the prescribed allowance. It is considered advantageous to marry girls very young, as, after the age of fourteen, the father would receive a smaller dower, and this again would be very considerably diminished on her second marriage. Moreover, a girl's value depends much on her fat, the lean kine being in small estimation.

While good old Mahommed Sheik (my dragoman) solaced his hunger by a little gossip with the Bedouins, I wandered on over those mountains of broken crockery and rubbish of every species, which have been accumulating for centuries till they form a natural feature in the landscape. Here, too (where all things worn and worthless find their last haven), among broken crockery and cast-away raiment, are laid the poor worn-out human machines that have finished their hard life-work. Thousands of humblest tombs lie here, half hidden by the shifting sand, and countless thousands of those too poor to raise the simplest monument have here buried their dead in the shallow sand—out of their sight indeed, but by no means beyond reach of the prowling pariahs, always on the scent for hid treasure, seeking what they may devour. It is a waste, howling,

boundless wilderness, with nothing to suggest the calm peace of God's Acre. Strange it seems to stand here alone in the uncared-for desert, where on every side "the dead of three thousand years" (perhaps of far more) sleep so silently beneath that blue heaven. . . . You think, and dream, and wonder—

"O ! I do ponder with most strange delight
On the calm slumbers of the dead man's night.—
Would that the silent earth
Of what it holds could speak, and every grave
Be as a volume—shut, yet capable
Of yielding its contents to ear and eye !"

I lingered among the tombs till towards sunset, when the carriage was to have met me at a given point. Our coachman for the day was a huge, ill-favoured monster, whom we had dubbed "The Egyptian Demon," by reason of the brutal manner in which he flogged his horses. On the present occasion neither carriage nor demon were forthcoming.

Poor old Sheik was faint with hunger, and had not even a light for the pipe which he held, ready to commence the moment the sun sank below the horizon. We dared not leave our trysting-place till after gunfire, as, till then, the carriage might come *via* the Citadel and just miss us. That moment past, we started to walk towards the city ; the ploughing through deep sand was very tiring, but on and on we went among the ruins, half dreading the ghostly touch of some shadowy spirit that might leave us bereft of reason, according to the Arab tradition.

At last my companion peeped into one of the dark buildings, then joyously bade me halt, for he had found a little group of friends squatting round a fire ; they offered him coffee and gave him a light, and in a few minutes he was ready to start again. By the time we reached the city it was quite dark. The streets were hushed and silent—and, as we dived down all manner of short cuts, there seemed no end to the intricate countless windings of those narrow overhanging streets ; often pitch dark from end to end—perhaps one man carrying a hand-lantern, affording the only glimmer of light—along dead walls of dark mosques and dark gateways. They were just such places as might have dark tales to tell of intrigue and revenge.

We scarcely met anyone, even the donkey-boys had all vanished from these deserted regions. At last, when I could hardly crawl farther, we hailed with delight the trot of little feet and captured one solitary donkey—a prize indeed. But, alas ! its saddle was an Eastern saddle masculine, and how to stick sideways thereon was quite a

problem. For a short distance the good old Sheik supported me most affectionately, but I think he was decidedly relieved when I found there was no alternative but to ride à *califourchon*, which he vowed was the orthodox attitude of Greek, Italian, and Turkish women—besides, as he justly remarked, “if we *did* meet acquaintances, they would not know us in the dark.”

So on we went, through all manner of out-of-the-way places, and saw the evening life of Cairo, which consisted in universal coffee-drinking and smoking, to take off the first edge of hunger, after the long fasting day. Very picturesque were those well-lighted groups, as seen from the dark streets—the turbaned figures, the long pipes, the very coffee-pots, each with a grace of its own. Then we passed through the flaring bazaars, and saw them, too, under new aspects; and at last, dismissing the small Arab and his donkey, rejoined somewhat anxious friends; and so ended a memorable night-ride through the ruins and byways of Cairo.

An hour later we returned to the Citadel to witness the Dervish festival in the great solemn mosque; and truly, of all the strange varieties of religious observance which it has been my fortune to witness in many lands, I know none which has left so bewildering an impression on my mind as this.

The building was lighted by a multitude of very Oriental hanging lamps. A great concourse of people moved silently over the soft rich carpets. They were not worshippers, but had assembled as spectators (partly awed, partly amused) of the strange ceremonial of a great company of Dervishes of diverse orders, whose worship was about to commence.

The first set were Twirlers. They wear a tall conical hat of drab-coloured felt, a loose upper jacket, and a dress of white cotton, fitting to the figure, and hanging straight down to the ground, like a nightgown, gored, and weighted at the bottom with bits of lead. Their faces looked sickly and unnatural, as if they were hysterical—and no wonder! First a Dervish lays down a sheepskin on a praying carpet. This is emblematic of the founder of the order, and is revered accordingly, so each in turn bows to the carpet. Then enters the sheik—a sort of lord abbot, dressed in black and green—and kneels on the carpet, whilst his followers also kneel in silent prayer. A plaintive chaunt is now raised, after which a villanous brass instrument commences to play, whereupon the sheik rises, and heading the procession, each in turn again bows to the carpet—to the man in front of him—to the man behind him. Then, throwing off their upper jacket, they appear in the long white dress, cross their

hands on the breast, and with humble reverence kiss the hand of the sheik. Then slowly extending the arms, with the palm of the right hand turned up, and that of the left turned down, they commence twirling after the manner of children making "cheeses." The skirt, held out by bits of lead, flies round in a circle. The head droops on one shoulder, the eyes are half closed, as though in some strange trance.

Thus they continue to spin like tee-totums, revolving on their own axis, and, by some instinct, seem never to touch one another. As the music quickens, so does the rate of rotation, but apparently without any consciousness on the part of the silent twirlers, whose pale, solemn faces wear a strange supernatural look of ecstasy. At the end of thirty minutes, at a given signal, the majority suddenly halt; only two or three, extra devout, continue their strange giddy turning, like silent white moths, all the time that the Howling Dervishes are going through their performances.

These are dressed like ordinary Turks, with large turbans, which, in their excitement, they throw off, and the long hair which marks their saintly character falls below their waist. Like the Nazarites of old, they have vowed that no razor shall touch their head. Now the brazen instrument redoubles its hideous noise. The Dervishes rapidly sway from side to side, rolling themselves and their unlucky heads in wondrous style; every feature writhes, the eyes roll wildly, while with deep sepulchral groan they grunt out *Al-lāh ! Al-lāh !* Then with violent spasmodic jerks, dashing themselves backwards and forwards, they touch the ground with their hands, and their wildly dishevelled hair tosses back right into our faces, when we shrink back in some alarm, and all the time the shout of *Allāh-el-Al-lāh !* followed by a deep groan, goes on unceasingly in measured chorus.

The exhaustion is terrific—every muscle strained—the eyes bloodshot—the mouth foaming—the whole frame quivering with frightful excitement.

Suddenly, at the bidding of the priest, they halt, still swaying like drunken men. Rapidly they bend the knee a thousand times, still shouting the Holy Name; then resume the grunting; and still the white twirlers go on calmly rotating like some sleepy humming-top in a fairy dream. After an hour of this wild work the howlers have wrought themselves into a state of frenzied insanity, amounting to positive madness, and as they are by this time quite irresponsible, and the smallest excuse might rouse their fanatical rage, it was judged *unsafe for us infidels to remain longer in the mosque.* The evening's excitement sometimes ends by producing cataleptic fits.

Amongst the strange beings was one who was unmistakably a gentleman ; he wore his ordinary dress and red fez. It was strange to see an educated man seeking favour of God by this frenzied "bodily exercise." Favour of men is abundantly gained, as the reputed sanctity of the Dervish secures him admission wherever he may please to enter. Of course many of them are truly religious men, others mere impostors who gain their living by writing charms and amulets, by divination, healing the sick by means of incantations, and so on. Many are simply idiots, who for that very reason receive the sort of reverence accorded to such as are believed to be especially cared for by God, inasmuch as He has deprived them of responsibility.

We quitted the hot glaring mosque, that in the morning had seemed so solemn and temple-like, and Mahommed Sheik was well pleased to see us safe outside of it, though his responsibility had been shared by an Egyptian officer, to whom Sheik whispered we should give a Backsheesh. The English officer who produced the tip blushed as he offered it, but it was accepted with perfect composure.

And now we were once more beneath the quiet stars, and could breathe more freely in presence of the solemn night ; but we felt hushed and bewildered by the scene we had witnessed ; and the turning, twisting, twirling beings with the pale dreamy faces still seemed to be moving before us. I almost felt as if I should have brain fever, and be haunted by these creatures in perpetual motion (just as I always think a delirious chorister must inevitably be haunted by a pointed edition of the Psalms, with **Big Words**, and **Middle-sized Words**, and **Small Words**, and *Little Tiny Words*, and *italics* all jumbled together, and dancing up and down in a mazy whirl.

We had all gone "to see the Dervishes," rather inclined to laugh ; only expecting to see some men "valseing heavenly," as a damsel told me her favourite partner did ; but there was an intense earnestness in the whole scene that quelled all sense of the ludicrous, and sent us away subdued and sad, only filling us with deepest pity for the strange beings of whose unsatisfying and unprofitable daily worship we had had this glimpse. Still more were we filled with wonder how so preposterous a ceremonial could be an off-shoot of grave, stately Mahommedanism ; by it acknowledged and cherished—the same solemn Mahommedanism that we had seen in India sneering so contemptuously at the vagaries of Hindoo faith.

Then we bethought us of still stranger excrescences of a *purex*

faith—of Christian sects who pervert Scriptural injunctions to new meanings—of so-called “Jumpers,” who testify the gladness of the Christian life by jumping, because they say that of old “men leaped for joy”; while others twirl like the Dervishes, because Ezekiel said, “Turn ye, turn ye, why will ye die?”

How many thousands quote St. Paul in support of their eccentric doctrines of every description, including spiritual wife-dom; and how many more deem it necessary still to dance and sing after the example of David or Miriam, in token of spiritual joy.

Witness such scenes as those enacted in Banffshire at the revival meetings, as described by the local papers:¹ scenes of intense so-called religious excitement; when the whole multitude assembled from the neighbouring fishing villages, poured along the streets of Buckie, singing and dancing, waving their caps, Bibles, and hymn-books, and shouting Hallelujah! Great strong fishermen singing and shouting “till they were quite hot;” women with their infants in their arms, and streaming hair, dancing and singing; lassies with their clothes tucked up as if they had just left their work joining hands and shouting; boys and girls and little children all joining in the chorus. A new feature in the movement was the introduction of what is called the gospel dance. At first there was merely a keeping time to the hymn music, while the people sat, but soon they all joined in, and the whole crowd kept up a sort of interminable jig that was suggestive rather of an Irish fair than of a religious meeting in grave Scotland. Next followed the “holy kiss,” as it is called; a devotional exercise which, in spite of all Scriptural authority, our cold Western churches have in general seen fit to omit; though our Roman sister, with her usual wisdom, has substituted the kissing of certain holy toes; a privilege which, as has been very justly observed, is not likely to foster excess. The whole description might be that of the religious dance of the Himalayan Hill tribes round the ark of their god.

Look too at the “Shakers” in America. Some recent spectators of their worship describe how men and women form in lines facing each other down the chapel, all dressed in a sort of conventual uniform. All join in most fervent hymns, and take it by turns to exhort one another. Then commences the mystic dance. All hold out their hands with the palms upturned as if waiting to catch a blessing. The women kiss each other, and dance and sing. After a while three brethren and three sisters stand in the middle, and the rest form a procession, two and two, holding their hands out open as

¹ Feb. 1871.

before ; men and women in different lines, each headed by an elder. With the utmost gravity and solemnity these now commence a curious hopping dance, which gradually quickens till it becomes a sort of reel, while those stationed in the centre sing hymns.

The Shakers are said to acquire the same sort of inane expression and pale complexion as the Dervishes. Frances Anne Kemble has given us a description of an American Shaker village, inhabited by seven hundred men and women, whose profession of religion has for one of its principal objects the extinguishing of the human race by devoting themselves, and persuading others, to celibacy and the strictest chastity. She says they are perfectly moral and exemplary in their lives and conduct, miraculously clean and neat, and incredibly shrewd, thrifty, and money-making. Their dress is hideous, and their worship, to which they admit spectators, consists of a fearful species of dancing, in which the whole of them engage, going round and round their vast hall or temple of prayer, shaking their hands like the paws of a dog sitting up to beg, and singing a deplorable psalm tune in brisk jig time : the men without their coats, in their shirt-sleeves, with their lank hair hanging on their shoulders ; the women without a single hair escaping from beneath their hideous caps ; mounted upon very high-heeled shoes, and every one of them with a white handkerchief folded napkin-fashion, and hanging over her arm. In summer they all dress in white, and what with their pale immovable countenances, their ghost-like figures, and ghastly mad spiritual dance, they looked like the nuns in "Robert the Devil," condemned to dance with ill-taught bears.¹

Still pondering on these things, I fell into a troubled sleep, perplexed with visions of human spinning-wheels and humming-tops spinning and humming for ever and ever, to the hideous music of those brazen instruments ; and just when in my dream Dante was beginning a new canto thereupon, for his *Inferno*, I awoke to the consciousness that the sun was already above the horizon, and that we had no time to lose in starting on our further journey—by no romantic caravan of slow-stepping camels, but the swift train of English-built carriages, and the snorting iron horse.

An hour later we were looking back regretfully, to catch one last glimpse of the beautiful mosque—whose white dome and minarets gleamed in the morning light—in truth, a stately temple. Much we marvelled to think that so fair an object should have been bequeathed to Cairo by so cruel a despot as Mahomet Ali—whose treacherous massacre of the Mamelukes, on the very spot where he subsequently

¹ *Records of Later Life*, by Frances Anne Kemble.

reared the mosque, was but one of his many deeds of blood. It is said that no fewer than twenty-three thousand of his subjects lie buried along the banks of the fresh-water canal which bears his name, all victims to the scourge of the cruel taskmaster of this hard-hearted tyrant.

Certainly, if we may judge of a creed by the lives of those who profess it, mercy and justice are not prominent features in Mahomedan faith. The Arab proverb says, "The worshipper will become like what he worships," and the hard, unloving belief in a God who guides relentless, pitiless Fate, is reflected in the hard unbending character of the followers of the Prophet.

The "La Allah-el-Allah" (there is no God but God) which greets your ear so often, is said to express to their mind a summary of all His absolute supremacy and resistless will; together with the utter passiveness of all created beings as mere instruments for good or evil; tools utterly helpless in the hands of an omnipotent and utterly unsympathising Power. So this unloving faith produces an unloving life; and the oppression of the poor under the amiable Turkish rule has become so entirely a matter of course, that they never even lift up their voice in remonstrance, but accept their lot in patient misery.

One of their proverbs in allusion to this state of things is, that their masters "take from the sorefooted his sandals." Another, referring to the custom of bribery, says, that "to seek for wealth without wealth, is like carrying water in a sieve;" an expression of striking force to anyone who has watched their primitive method of irrigation, when, in order to raise water from a lower to a higher level, two men stand, one on each side of the lower ditch, swinging backwards and forwards, by means of two ropes, a frail wicker basket which allows about three-fourths of the water to run out, before it can possibly reach the upper ditch.

They describe the generosity of their task-masters by saying that "it is easy to cut broad thongs from other men's leather;" a proverb which always reminds me of that charming definition of Benevolence as "the feeling which prompts A, on seeing B in trouble, to ask C to help him!" The procrastinating Turks say, that he who lingers by the way, and he who hastens, alike meet at the ferry; but I believe that to the more diligent Arabs we owe the proverb that "By the lane of by-and-bye, one comes to the gate of never." In no other country have I seen a population that impressed me as being so abjectly poor and miserable as these Egyptian fellahs. They are said to be an utterly degraded race, but who can wonder if they are?

Poor wretches, they have hard enough lives, to make them as bad as they are called ; no sunshine of happiness seems ever to gild their sad days. Nothing but work and oppression from their birth to their grave ; forced to labour at wages that will barely sustain life even in Egypt, and urged to their work by the sharp whips of Arab taskmasters. Even their little children are forced to work by the same whip, and you see little ones of five and six staggering along with a heavy basket-load of earth. The more independent agriculturist fares little better, and it is computed that in work, in money, or in kind, he is compelled to give up ninety-five per cent. of the produce of his labour, thanks to the system of extortion, cheating, and beating whereby the revenue is collected.

The sheik of each village contrives by dint of cruel beatings to extract the utmost farthing from the wretched fellahs under his rule, keeping for himself as much as he dare, though he, in turn, suffers the Naboot at the hands of the Nazir, another petty officer, of peasant origin like himself, and for that very cause all the more ruthless. He knows that he must make his own harvest off the moneys paid by the sheiks, and yet receive the Naboot should he fail to satisfy the Turkish governor of the province, who also wants to take his pickings before handing over the revenue to the Pasha, and so it goes on. Of course the miserable fellah must beat some one, so he lords it in his own household, and wife and children suffer in their turn. If, as Keats says,

“ Love in a hut, on water and a crust,
Is (Love, forgive us !) cinders, ashes, dust,”

what must life be in an Egyptian mud-hut, with blows and bickerings to increase the amenities of poverty ! It is a home of the earth earthy. The walls are of clay, the roofs of palm rafters covered with clay. No furniture save a clay bedstead over a clay oven, heated with fuel of camel-dung. On a clay dish-stand are set the earthen dishes and water-jars which constitute the “plenishings” of an Egyptian home. No wonder that the inmates should be more filthy and more wretched than anything you can well imagine.

Then on we whirled over sand and pebbles—pebbles and sand—sometimes so strangely like our own desolate Culbyn sand-hills on the shores of Morayshire, that it seemed quite homelike ! The sun set like a ball of fire, sending rays of ruby light athwart the desert, and darkness rapidly followed. Then came the clear moonlight gleaming on the white latine sails of boats sailing on the canal, close to the railway. Then Suez—then the Red Sea.

C. F. GORDON CUMMING.

WINTER ANGLING.

IT is only the man having within him the true heart of a sportsman who is addicted to the practice of winter angling. Him, storm does not affright, nor cold deter. The elements enter not into his consideration further than the degree to which they affect the fishable quality of the water. The poetical side of the occupation is for the time obscured. Nature is no longer smiling with the light and shadow of gracefully waving foliage; the bright colour has gone from her cheeks, the music of the soft wind from her voice. The swallow no more hunts the bee; there is no murmur of insects in the air. After the autumnal equinox the fair-weather angler lays aside his paraphernalia until the time when

The crocus in the shrewd March morn
Thrusts up its saffron spear.

Or he may prolong his recess still further, dreading the strengthening cold which the proverb truly assigns to lengthening days. In the genial climate of such a county as Devonshire, he may be tempted forth on fine days to try the virtues of the March Brown, but more likely he will content himself with overhauling his gear, and wait till he can exclaim—

'Tis the early April lark,
Or the rooks with busy caw,
Foraging for sticks and straw.
Thou shalt at one glance behold
The daisy and the marigold;
White-plumed lilies, and the first
Hedge-grown primrose that hath burst.

But the winter angler, strong in faith as in constitution, and loving his sport the better for the tribulation through which he possesses it, is on the alert in November, eager in December, enthusiastic in January, and desperate in February with the energy natural to one who sees a quick-coming end to his opportunities. On Boxing-day, 1881, it is computed that not fewer than ten thousand anglers were out by the rivers within a twenty-mile radius of London. The green Christmas happened to be favourable for them, and so, obdurate to

the attractions of pantomime or of the domestic fireside, they braved the fog and damp, and plied their lines with a result that was deplored as ridiculously incommensurate with their labours.

The mild winter is not loved by the angler unless in its earlier months there has been a wholesome preparation of frost. When the December and January days are warm, and the southerly and westerly winds seem to promise an abundance of sport, the winter angler often meets with direst disappointment. He holds, with the rest of the brotherhood, that there is nothing like keen frost for putting the fish into a proper frame of mind, and experience certainly in the main would appear to be on his side. Who cannot recall days when the moisture from his line froze in the rings of his rod; when the hard snow crackled under his feet as he pursued his persevering way in search of pike or grayling, glowing cheerily all the while with the healthy glow which open-air exercise alone can give? And who, so drawing upon his memory, has not the satisfaction of adding that he has sometimes found such winter angling not only the most pleasant, but the most profitable?

The pike fisher, rightly enough, hails the winter as his especial privilege. The weeds have rotted, and, should there have been timely frost and flood, have been swept away with other *débris* accumulated during the summer. The fish, deprived of their cover, retire to the deep water, and may there be found when judiciously called upon. They are in the finest condition in the depth of winter; there is a golden burnishment about the vesture of a well-fed pike during December, January, and part of February, that is not seen in full development at any other period of the season. Moreover, "the tyrants of the watery plain," as Pope calls them, are now in possession of their full faculties, and when they do move, dash at you with a heartiness of soul beautiful to behold. Clearly, they are able to concentrate their attention upon passing events better than when, in the spring, they push up between the confined embankments of a circumscribed brook, and engage in marrying and giving in marriage; or when, in May and June, they engage furnished lodgings for the season in the bowers of some aquatic forest, where, amongst the lilies and lovely growths which only dwellers below the surface of the water can thoroughly appreciate, they can meanwhile keep an evil eye upon the unwary fry out for a frolic; or when, in the heat of July and August, they must needs get nearer heaven, and bask in the sun in happy indolence. The subaqueous coppices have been lopped and taken away, and should any fragments have been overlooked, they are not an attraction but an offence; and as to shallows in winter time,

the pike knows better than to suppose that the dainty little silver fish which sport there at Midsummer, are now to be deluded into it so much as a temporary visit. To the deeps, therefore, will they resort, and the angler has, so long as they there remain, the advantage of a fair field, and only so much favour as depends upon his own skill.

The good old fashion of trolling with a gorge bait seems to be almost forgotten, and to be treated with scant respect by modern angling authorities, who, if they do not discountenance and deride it, certainly award to it the faintest of praise. I must confess my liking for this ancient system, which was belauded and practised long before spinning was thought of. In country districts yet an accomplished troller may still be found, but, on the Thames, trolling is so little understood that the term is indiscriminately applied to all methods of spinning. Habit, I suppose, has much to do with these preferences, and I must confess that my introduction to the art of trolling was sufficiently pleasant to impress it upon my mind, and to enlist for it the suffrages of fancy.

Next to the *Compleat Angler*, no work on fishing has ever given me so much delight as the little book by "yours in all Christian Services, Ro. Nobbes." The edition which fell in my way was that of 1682, entitled "The Compleat Troller, or the Art of Trolling. With a description of all the utensils, instruments, tackling, &c. materials requisite thereto; with rules and directions how to use them. As also a brief account of most of the principal rivers in England. By a lover of the sport. *Trahit sua quemq: voluptas.*"

Nobbes was not, as many, spite of protests by several authorities, still declare, the father of trolling, for he dedicates his book "to the Right Worshipful James Tryon, Esquire, of Bullwick, in Northamptonshire; a favourer of this art;" and acknowledges with quiet courtesy and simple gratitude that from this worthy he "borrowed the sparks which have since kindled and increased into a flame." Mr. Nobbes was a diffident man, as his address "to the ingenious reader" shows. He apologises for his work, but withal, he stands up boldly for his beloved sport of angling, as to which he says, "Our simple art composes the soul to that quiet and serenity, which gives a man the fullest possession and fruition of himself and all his enjoyments."

And again, "Though all these contentments and many more, both for Health and Pleasure, as well to gratifie the Senses and delight the Mind, do arise from this Cheap, and as some call it, mean Melancholy art; I say though all these satisfactions do proceed from it, and it propounds pleasure at such an easie rate, yet I expect to meet with no other Entertainment in the publishing of it than neglect, if not scorn, contempt, and neglect."

With neither the one nor the other did I receive the wisdom of this philosophical pikemaster, but on the contrary, taking it to heart, with such improved tackle as the modern masters have provided, did I capture my first pike upon the principles he laid down. After the lapse of long years I can go through every phase of that achievement, from the catching of the gudgeon in the morning, to the clumsy cast of the bait across the mill-stream where, bending round by the willow bed, it became sober in its flow, laving, on the farther side, a fringe of flags following the sinuosities of the bank. Was it entanglement in a weed that after a few attempts arrested the hand, and caused the heart to beat quickly? But weeds do not give double knocks at your line, and then slowly take it against the current up to a quiet corner; nor make the line tremble, even as trembled the hand that held the rod, fearing lest the operation should be checked, yet hoping that the gudgeon so unmistakeably struck would be as unmistakeably pouched. Had I not, for my consolation and guidance, the directions of Master Nobbes? "When," he says, "you have diverted yourself as long as you think good with the pleasure of a bite, and can guess by the running of the Pike what progress he hath made in his repaste, by his ranging about for more, you may then hook him with a small jerk, and so take your fill of your contented sport: for though we say of a Pike as of a Thief, give him Rope enough and he will hang himself, yet a fine gentle stroak will do him no harm, but rather secure him and entangle him the faster If he takes the Bait greedily at bottom and marches up Stream with it, or strikes across the River towards his hold, he will then probably lie still a little time, while he is Pouching, as you may feel him check and tug at it; from which place, if he goes quick, you may let him alone a little longer, for you may come to lose all for want of two or three minutes' forbearance; if he hath lain still a while the second time and then runs with it, you may let him go with it still, if you have a desire to prolong the sport: if not, you may draw your Line streight, and with your Pole give him an easie stroke, and so feel him by degrees, till you come to see him; but if he makes much resistance, and is very furious let him have Line enough, and give him his full swing: he will be very angry at first, till he is better pacified by losing of his strength."

Apology for so lengthy a quotation I do not presume to offer, for a generation, I fancy, has arisen which knows not Nobbes, and furthermore, the advice, in the main, may stand without correction, although the eminent troller worked with clumsier weapons than do we, and erred, as did Izaak Walton, in certain matters of Natural History, upon which knowledge in those days was not complete.

Spinning, it is not to be denied, is the highest branch of the art of pike fishing, and no man can take honours in that art who is not master of all its forms, either with natural bait or the numerous and on the whole successful imitations which have been invented. But to sneer at the troller as the deluded follower of a worn-out system, or to rank him with the meaner class of pot-hunters, is going altogether too far. There are even now, up and down rural England, as good anglers as ever tramped by river who troll from preference, and who stoutly contend that taking one month with another, and one river with another, they can show as satisfactory an account of pike killed as the best spinner that could be mentioned.

Perhaps the chief reason for this preference will not appeal to everyone; to wit, the comparative immunity from hard work given by trolling. The theory is that every sportsman should be an iron individual who invites hardship as a badge of his tribe, and accepts severe toil as a prime necessity of sport. The time, however, arrives when our glorification in these Spartan sentiments is apt to cool. A harder day's work than that involved in the persevering spinning of a broad river, whose banks are more or less wooded, and whose margin is fringed with rushes, I cannot at the present moment recall. There must be no pause in the in-gathering of the line if the regular motion of the bait, without which spinning is a delusion, is to be maintained, and the shoulders must be constantly engaged if the rod is to be manipulated in workmanlike style. Still, I grant, for my own part, better that than any form of winter fishing that necessitates a stationary angler. It is because trolling presents a happy medium between the stagnation of live-baiting and the liberal exertion of spinning that I uphold it, and if the spinner tells me of the well-known advantages of his favourite method, I might reply by pointing out certain others to be enjoyed by the troller alone. But I have no wish at this time to argue the point, my only object being, with becoming modesty, to put forward trolling as one of the most delightful forms of winter fishing. With your dozen silvery roach, dace, or gudgeon, packed snugly in a bed of sweet bran in a cardboard box; with your roomy bag at back, and gaff slung underneath it; booted to the knees, and safe against the rain, you may wander, not lazily, but still at leisure, along your river, enjoying the prolonged sensation peculiar to the orthodox run secured by working your bait towards your feet, on the approved principles of trolling. The pauses incidental to gorging—and the more the merrier—afford a temporary and agreeable relaxation, during which all the senses are alive, so that the observant eye, brightened by the glow of expectancy,

has time and inclination to wander over land and water, and take in impressions that cannot fail to be happily tempered.

Upon the pike itself, chief prize though it be of winter fishing, it is not now necessary to dwell at any length. The fish has been written of by able pens from time immemorial. He got into English heraldry before any other fish. Edward I. fixed the price of a pike higher than that of a salmon, turbot, or cod. Chaucer put the *luce* in a stew, to point a very telling moral. It was a pike that Frederic the Second, "governor of the Universe," is said to have honoured by marking in 1232. The fish has been thought meat fit for kings and archbishops. And it is worthy of note that, through all the centuries, probably more falsehoods have been invented about the pike than over all other freshwater fish combined.

Touching this latter consideration, a few months ago there was a paragraph industriously "going the rounds," which really gives colour to the frequent accusation of romancing brought against the angler. The story is bold and circumstantial.

A sportsman, so it runs, not a dozen miles from town, strolled out one morning with his gun and shot a "bobtail blue rock" which had escaped from the dangers of a recent pigeon-match. The bird fell into the lake, and "the well-known shot was surprised to see an enormous jack of some twenty lbs. draw the bird under water and disappear." The voracious pike undoubtedly has a weakness for such delicacies as moorhen or dabchick, and would not perhaps draw the line at a blue rock. Still, it was curious that the fish should have been so near the edge at that time of the year, and still more curious that the sportsman should have been able with such arithmetical nicety to gauge the weight. However, the real curiosity was to come. The narrative goes on to state that a sow and litter were prowling along the margin in search of dead bait left by the previous day's pike fishermen, and that one of the porkers, stepping in to secure a floating roach, was seized "by an enormous pike, who dragged him out of his depth, where he was joined by another member of the finny species." Of course, for a while it was pull pike, pull pig; but the latter "being fat and one of W.'s own breeding," the brace of pike, unable to effect a successful gorge, came off worst in the transaction. The pig stuck in their throats almost as if it were an embodied lie, and "in this state they were both dragged ashore." The size of these specimens of the freshwater shark is not given; but as the jack which bagged the pigeon was, just in passing, as it were, mentioned as being of some twenty lbs., and one of the pig-hunters was thought worthy of being described as

enormous, the inference is that they were of phenomenal dimensions. The tragic group—a brace of gigantic pike, side by side, gagged by a pig, upon which their hungry jaws had immovably closed—has, let us hope, been preserved. It is a thousand pities that poor Frank Buckland is not alive to hand it down to posterity in imperishable casting. In its way it would be a curiosity, and a unique contribution to any natural history museum. Even the little incident of a pig taking to the water at so early an age is not without its value, opening up as it does a possibility of swine being educated to supersede water-spaniel or retriever. The weak point of the story is the unhesitating estimate of the fish that escaped with the pigeon, and the silence observed with regard to the larger monsters that did not escape. With a small amount of corroboration, we have here a story that might be added to the well-known instances of the angling books, such, for example, as Gesner's pike which attacked a mule, or the 170-pounder which, according to a paragraph in a London newspaper in the middle of the last century, pulled a parish clerk into a pool and would have devoured him, but for his agility in swimming ashore. The late W. Barry, whose charming essays on sport have been published, told me that he once heard an angling club described as "a place where fishermen meet to tell lies." This, of course, was cruelly unkind, and even libellous. Far be it from me to suggest a doubt of the truth of the pike-and-pig fatality to which I have called attention. At the same time, it is not to be denied that, as it stands, the story is calculated to give the brethren of the angle a bad name, not so much perhaps because the general reader would be sceptical about the facts, as on account of a certain slovenliness and even barrenness in the matter of authentic data.

At the same time, one might almost believe any story told of a pike; and there are few anglers who might not from their own experience make statements of actual occurrences which none would believe.

The entertaining author of *My Life as an Angler* relates a humorous instance of incredulity anent a pike story. At a country-house breakfast-table in Lincolnshire a discussion arose upon the merits of pike as an article of food, and no doubt the contempt natural amongst gentlemen used to salmon- and trout-fishing was freely expressed. One of the party sallied forth during the day to reduce the question to the test of practical experience. The lake which promised success yielded nothing. The angler thereupon moved to a stream which he describes as clear as crystal and not more than a yard deep, and saw a pike of about eight or nine pounds in weight poising himself in midwater. The bait (a dace) was

"chucked" to him, and the fish at once took it. The angler does not explain what tackle he used, but, as he "promptly drew my friend ashore," we may assume it was something of a snap character.

Be that as it may, he "gently put him in again, on which he paddled off a short distance, wheeled round, and stationed himself much as at first. I threw the bait again; he seized it immediately, and this operation was repeated some five or six times." It is not surprising that at the seventh or eighth trifling of this sort the pike became suspicious, and was killed the next time he seized the dace. Nor is it astonishing, perhaps, to find the angler's account of the adventure politely discredited. "There was," he says, "a distinguished company to partake of him"—meaning the pike—"one peer, one bishop, two or three baronets, and many county notables. I told my tale as I have told it above: the company was far too dignified for anything like direct contradiction, but I heard two or three dry coughs, and another subject was introduced at once. Plainly, not a soul believed me. I have repeated the story since in many companies, but have no recollection of ever finding any Christian or Samaritan yield the slightest credence thereto. I once told it at an anglers' dinner of about twenty assembled by my excellent old friend Teale, of Leeds, to meet Frank Buckland. On that celebrated occasion every man excelled his neighbour's fishing anecdotes with some yet wilder tale, but the above simple story was rejected by all as a cram entirely beyond deglutition." There is no reason to doubt the story, nevertheless. A hungry pike is quite capable of all that is told by the narrator of this dreadful instance of unbelief amongst the higher orders, even a bishop playing the *rôle* of Thomas Didymus.

Next to the pike must come the grayling as an object of regard to the winter fisher. The streams in which it is to be found, however, are comparatively few, and as the fish has a much more delicate nature than either the pike or any of the coarse fish which engage the attention of the bottom-fisher, grayling fishing is confined to a select number of anglers. The grayling is the only fish to be taken with a fly during mid-winter. It furnishes the nicest description of angling, and, of course, for table purposes it is immeasurably superior to the pike. Very pretty sport, indeed, it is during the sunny mid-day hours of a December day, when the frost has whitened the ground, and made the air crisp, when the grass, out of the track of the sunbeams, sparkles as with diamond dust, and when the blue smoke ascends straight from the cottage chimney and curls delicately amongst the bare branches of the great tree which shelters it, to catch with a small fly and fine tackle half a dozen brace of pounders for the Christmas dinner. Just for two or three hours, though not an

more can be discovered in the wing, the grayling, in the slipping eye and tail of a stream, will rise boldly, even if, in the shade of the further bank the trout will hold. The remark made on a preceding page as to the effect of frost upon winter fishing applies, perhaps, in as high a manner to the grayling. The winter of 1881-2 will long be remembered as one of unusual mildness. The prevalent winds were from the quarters which the angler loves, and during the two most winterly months of December and January the rivers were for the most part exceedingly favourable for all kinds of fishing. But it was notwithstanding a particularly disappointing season for the angler and in none more than the grayling-fisher. Soft breezes, well-tempered water, spring-like sunshine were for him in vain; were in truth a mockery. For some reason or other, the grayling steadily refused to be roused by the flies, at which in ordinary years he rose gallantly, and the lack of frost was the explanation given, by way of consolation, north-west and midland. Even the Dove, which as a rule would rarely repay the winter fisher for his tramp up the Derbyshire fells, was a dismal blank, not, fortunately, did the user of worms and gentles find better than the more legitimate sportsman, the game of the trout. "The glorious Bishop of Milan," says Walton, "who lived when the Church kept fasting days, . . . called him the 'flower fish' or 'flower of fishes,' and was so far in love with him that he would not let him pass without the honour of a long discourse." The elegant gamesome grayling was, if legend speaks truly, always a favourite with the Church, and, according to some historians, owed its introduction into England to a monkish appreciation of its excellence in the refectory; but even Ambrose, the Saint, would surely have excommunicated it for its unaccountably churlish behaviour during the past winter.

The scientific bottom-fisher is, of course, also in his glory in the winter months. He knows that roach and perch, and maybe dace and chub, are then in the best condition, and that the largest fish are most likely to be hooked. What he may lack in quantity he may fairly hope to gain in quality. Bottom-fishing in winter, however, is sport only for anglers of strong constitutions, and it is during the bitter weather, when the searching blasts penetrate the very marrow, and the monotonous float never goes beneath the surface, that the patience of the shivering fisherman has her perfect work. In the deep "swims" what of large roach there may be in the shoal will, under ordinary conditions, freely take the bait, and often a coarser bait than the angler dares attempt at any other period of the year may be employed. The perch will have donned his most

superb colours, and will not hesitate to boldly appropriate the bait intended for the pike. After a flood, rare store of fish may be reckoned upon in the backwaters and eddies of a river inhabited by perch, and the sun that is unfavourable for other descriptions will not render timid this dashing Zouave of the stream. A day's perch-fishing seldom comes amiss to any sort of angler. It reminds the veteran of the mill-pool of his far-off school-days, and the gleeful success through which, with rude appointments, he contracted a lasting love for the gentle art. It is like rabbit-shooting, in that the sportsman who has flown at the highest game the world can offer, to the last day of his life loves occasionally to come back to it. One has a sneaking kindness too for the fish itself. Hear what a learned and reverend authority like the author of *Notes on Fish and Fishing* says: "He is both handsome and beautiful. His symmetry is perfection, and in this respect I hardly know a fish I admire more. He is resplendent with colour, both in harmony and contrast. The dark transverse bars zebra-wise striping his pale-shaded green body, his beautifully arranged scales, the bright vermilion of his anal and caudal fins, the golden irides of his eyes, and his white belly, make a picture which perfectly fills the ichthyologically admiring eye." And indeed it is so. This lover-like language is not over-drawn.

The fine determined disposition of the perch, when he takes up particular quarters, and is inclined for business, I can illustrate by a recent anecdote. In a small country town, not to be named, the odour of pancakes proclaimed Shrove Tuesday; the green winter had made green fields in advance, and the rooks were uproarious over their domiciles in the tops of the leafless elms. The little river looked very tempting, and I strolled down to a favourite spot where a brother of the angle sat rod in hand. Some little time before, he had been fishing for roach in an eddy, and had been in angler's parlance "carried away." The one description of fish, it should be interpolated, which the river had been supposed for years to lack, was the perch. But as it occurred to my friend that he had to thank a perch for his broken foot-line, he, by way of experiment, rigged up stouter tackle, and put on his largest worm; in a few moments a fine perch was fighting hard for liberty, with its dorsal fin, as usual, raised in defiance to the last. Then followed an extraordinary run of luck. In the course of three hours the angler had caught, without moving from his seat on the rustic bridge, eleven perch, all over a pound in weight. Two days later another angler, accidentally hearing the news, and having access to the privileged water, hurried

from town, and sat himself down on the identical seat, if haply one member of that once goodly shoal remained. He too was fortunate. To his lot fell five perch, the largest weighing two pounds and a quarter, and they were caught from the same spot in the eddy as before. The next evening the original discoverer of the rare fortune thought it worth while to try again, and he secured two other fish and lost two. It was at this juncture that I passed by on the other side of the river, surprised to learn from ocular demonstration that every member of that hapless flock had not been taken. The next morning, having a spare half-hour before the starting of the train, I resolved, in a forlornish-hope kind of spirit, to go through the form of perch-fishing on my own account from the now famous seat, and I soon had the pleasure of landing a fish of one pound twelve ounces, and two half-pounders; and of returning to the water a tiny perchlet, lovely enough in shape and tinting for a breast-pin or brooch. The shoal had somehow wandered into the eddy, and, contracting a fatal love for their new home, had remained in possession until probably not a sizable fish escaped.

But, with all its delights, winter angling comes to an end without poignant regret. Before the ripe summer fishing there is an interval of rest for the coarser fish, and trout and salmon for those who can travel to seek them. The pike have respite till June, and should have respite till September. When next the bottom-fisher sallies forth he finds once more the bountiful picture of which we all dream even in the brightest days of the happiest winter:—

Summer glows warm on the meadows, the speedwell and goldcup and daisies
Darken 'mid deepening masses of sorrel, and shadowy grasses
Show the ripe hue to the farmer, and summon the scythe and the haymakers
Down from the village; and now, even now, the air smells of the mowing,
And the sharp song of the scythe whistles daily, from dawn till the gloaming.

REDSPINNER.

STAR-CLOUDS AND STAR-MIST.

THERE are some scientific questions which have excited an interest seeming at a first view disproportioned to their intrinsic importance. Sometimes the distinguished position of those who have taken part in scientific discussion, at others the skill and acumen with which rival theories have been maintained, have directed exceptional attention to particular questions. Too often personal animosities have become associated with a subject of discussion ; for unfortunately it sometimes happens that

The man of science himself is eager for glory and vain,
An eye well practised in nature, a spirit bounded and poor.

But there have also been occasions when the singular progress of a dispute, the swaying hither and thither of contending evidence, and even the repeated apparent settlement of the question, by what seems like overwhelming evidence on one side or the other, have given the discussion a singular (perhaps a factitious), and in a sense an almost romantic interest.

Among questions of this sort, few have been more interesting than the subject of which I propose to give now a short sketch, partly historical, partly explanatory—the history running up to this present time, the explanation to be completed only hereafter, and perhaps at a very remote date, if at all.

When the depths of the heavens are explored with a powerful telescope a number of strange cloud-like objects are brought into view. It is startling to consider that if the eye of man suddenly acquired the light-gathering power of a large telescope, and if at the same time all the single stars disappeared, we should see on the celestial vault a display of the mysterious objects called *nebulæ* or *star-clouds*, exceeding in number all the stars which can now be seen on the darkest night in winter. The whole sky would seem mottled with these singular objects. With reference to *nebulæ*, or rather to certain classes of them, opposite views were for a long time maintained by astronomers. "Whether," said Humboldt, half a century since, "the cloudy masses referred to be indeed composed of

luminous matter, or whether they are merely remote, closely crowded, and rounded clusters of stars, is a question which has for more than two hundred years been agitated among astronomers." Galileo and Kepler and Halley discussed the question when as yet the nebulae might be counted on the fingers of one hand. I might, indeed, even go further back, and quote views of Tycho Brahe, who wrote before the telescope was invented. Later, the Cassinis and Mitchel, on one side, Derham, Lacaille, and Kant, on the other, supported the rival theories according to the evidence available in their day. Then came the wonderful labours of Sir William Herschel, who in an age when nebulae had been counted by tens, continued to send in to the Royal Society lists of thousands of these objects. His discoveries attracted fresh attention to the subject of controversy. Holding first the opinion that all nebulae are star-clouds—that is, closely aggregated congeries of stars, reduced by distance to the appearance of clouds—Herschel came round in the latter part of his career to the contrary view, and gradually, after many disputes among his followers and opponents, the question was held to be settled in favour of the opinion he maintained. How, since then, a contrary opinion gradually struggled into favour, and was eventually established, as was thought, upon the firmest possible basis; how this opinion, at the moment when it seemed that all astronomers were about to accept it, suddenly and unexpectedly received the *coup de grâce* from an eminent physicist of our day; and how later the simple interpretation, which seemed thus suggested, has been in turn rendered doubtful by fresh evidence, is what I now propose to explain.

It will not be uninteresting, however, to examine briefly in the first place some of the more striking features of the wonderful universe of nebulae. There are, indeed, few subjects in astronomy better calculated to excite emotions of astonishment and awe than those which are associated with the remotest depths of space yet reached by the telescope. The feeling with which men in all ages regarded the star-lit vault of heaven is far less intense than that with which the astronomer gazes into depths "to which the visible skies are but as the portal," and analyses the fantastic star-clouds which come into view with each increase of telescope power. "System on system of majesty unspeakable, float," said the late Professor Nichol, "through the fathomless ocean of space. Our Galaxy, with splendours that seem illimitable, is only an unit among unnumbered throngs; we can think of it, in comparison with creation, but as we were wont to think of one of its own stars." But now a yet more startling view of the habitudes of space is presented to our contemplation. Recognising

the possibility that some nebular objects which the telescope reveals to us may be systems of stars external to our own, and in a sense resembling it, we are yet forced to recognise the existence of vast wildernesses of matter presenting no characteristics such as we had become accustomed to. We learn to recognise in our own stellar system a far more varied structure than we had hitherto supposed it to have ; while as respects external galaxies, not new systems merely, but new kinds of systems are revealed, while the imagination is left to picture yet more wonderful systems of systems within depths to which the most powerful telescopes yet made by man cannot penetrate.

It was early recognised by Sir William Herschel that the nebulae admit of being arranged into certain very distinct classes. There are the star-clusters, splendid gatherings of stars, the most striking perhaps of all telescopic objects. Some of these are so magnificent that what Professor Nichol said of them is probably not far from the truth, viz. : "That no one has ever seen them in a telescope of adequate power without uttering a shout of wonder." Then, as though by mere increase of distance, we have star-groups of less splendour, their constituent orbs more and more closely congregated, until at length we either reach depths at which it is no longer possible to distinguish separate stars, or else we examine regions where the stars are in reality so much smaller and so much more closely set that they seem to form mere aggregations of star-mist. Among such telescopic objects are to be seen nebulae whose characteristics suffice to show that could we only increase the power of our telescopes we should discern the separate stars now lost to us under a milky haze. A sparkling appearance which the practised observer cannot fail to recognise indicates that the source of the light consists of a multitude of brilliant orbs, and not of a luminous haze or mist.

Respecting the important classes of nebulae just spoken of, but one opinion prevailed till recently among astronomers. These clusters have been held to be so many distinct aggregations of stars scattered throughout the depths of space at various distances, many of them comprising within their bounds a far larger number of orbs than the naked eye perceives upon the darkest and clearest night. The same opinion was also formed of those objects which, in the magnificent telescope of Lord Rosse, have been found to present a spiral or whirlpool appearance. Indeed, there were those who looked upon our Galaxy as being a member of the same class, so that to astronomers in those outlying universes the Milky Way, and all the stars which deck our nocturnal skies, would seem reduced to a small spiral coil of hazy light. Whether this opinion, or the general view which

associates the stellar cluster with a theory of external galaxies, be correct, it is not here my special purpose to inquire. I mention the view because it for a long time held undisputed sway among astronomers, and because it conveniently illustrates the aspects of certain classes of nebulæ.

What was disputed among astronomers, even in the time when the theory just described was accepted, was the question whether we can pass from the forms of nebulae above described to those which remain to be considered, or whether a broad line of demarcation separates the latter entirely from the former, and forces us to look upon them as objects of quite another kind.

In searching over the heavens Sir William Herschel came across certain objects which might very well at first sight be mistaken for tailless comets, or even for enormous planets removed to so great a distance from the sun as to shine with a very feeble light. He called these objects planetary nebulae. As described by him they presented a most perplexing subject of inquiry. "They are," he wrote, "somewhat extraordinary objects, with round or slightly oval disks, in some instances quite sharply terminated, in others a little hazy at the borders, and of a light exactly equable, or only a very little mottled, which in some of them approaches in vividness to the light of actual planets."

It was principally the examination of these strange objects that led Sir William Herschel to abandon the view that all nebulae are composed of stars. It was the peculiarity of this admirable astronomer that he added to extraordinary skill as an observer an acumen in the interpretation of observations which has never perhaps been equalled. I may notice in passing that the two qualities are seldom found in combination, at least in their highest excellence. Observers of the utmost eminence might be named who have been wholly wanting in the power of drawing from their observations the inferences justly deducible from them. And on the other hand, our leading theorizers in astronomy have seldom shown any considerable, or even moderate, powers of observation. It may undoubtedly be ascribed to the union of the two qualities in their highest excellence in Sir William Herschel, that his labours have influenced in so remarkable a manner the progress of modern astronomy, and that the praise bestowed upon him of having broken down the barriers of the heavens (*cælorum per-rupit claustra*, says his epitaph in Upton churchyard), has not been looked upon as exaggerated.

After duly weighing all the circumstances connected with the planetary nebulae, this great astronomer at length came to the conclusion that they should rather be looked upon as presenting the

matter from which at some distant epoch a single star is to be formed than as consisting of a multitude of stars removed to a very enormous distance. Strange as the idea may seem at first, it does not seem improbable when all the circumstances are considered. If we look at our sun and his attendant system of planets, and note the brilliancy of his light, the apparent density of his mass, and the solidity of the orbs which circle around him, it will indeed appear amazing that any could be found so bold as to associate that system with a faintly luminous globe of gaseous matter such as Herschel supposed a planetary nebula to be. In every aspect, in brilliancy, in density, in solidity, the contrast seems most striking. But when we come to consider the enormous volumes of the planetary nebulae, we find that on the lowest possible estimate of the density of the gas supposed to form them, they must contain an amount of matter fully equal, in many instances, to that contained in the whole solar system; and that, therefore, we cannot doubt that from their condensation solid bodies as large as our sun, or larger, might very well be constructed.

A few facts drawn from the calculations of the younger Herschel will suffice to show that this conclusion is just. There is to be found in the constellation of the Water-bearer a planetary nebula with respect to which it has been shown that supposing it not farther from us than the nearest fixed star, its globe would fit into the enormous orbit of distant Uranus, somewhat as a terrestrial globe within its brazen meridian. It follows that this nebula, at the lowest computation—for no one doubts that the nebulae are far beyond the nearest fixed star—has a volume exceeding the sun's nearly seventy thousand millions of times. It would follow, of course, that the matter of which it is made must be lighter than that which forms the sun, in an exactly corresponding proportion, if this nebular globe and our sun exactly counterpoised each other. Matter such as this would be fifty million-fold lighter than common air! One peculiarity of the planetary nebulae is very striking. It has been observed that whereas among the single stars a bluish or greenish tint is never noticed, all the coloured stars being red, orange, or yellow, several of the planetary nebulae are characterised by a very distinctly marked tinge of bluish green. We shall presently see the meaning of this peculiarity.

For reasons which will appear in the sequel, I mention at this stage certain nebulae which astronomers associated formerly with the planetary nebulae. These are the singular objects called ring-*nebulae*. In these we see a well-marked circular or oval ring of light surround-



The Orion Nebula

...with a fainter light than the surrounding sky. We may see nebulae in the same manner as we see stars, but the nebulae, which, as we have seen, are composed of an enormous number of stars, are not seen as such, but as a single mass.

The Orion nebula is the most remarkable of the class of objects known as the irregular nebulae. Extending over a wide range of sky, over a range which indeed grows larger and larger with each increase of telescopic power, these objects incalculably exceed all other known objects in volume, even if we suppose them to be no farther from us than the nearest of the fixed stars. There are not many irregular nebulae, yet they probably cover a greater extent of the heavens than all the others—six thousand in number together. One in the southern heavens, known among astronomers as the great nebula in Argo, surpasses the Orion nebula in easy visibility. Indeed, from my own observations, I can confirm the statement

The Orion nebula may be looked upon as a type of the class of objects known as the irregular nebulae. Extending over a wide range of sky, over a range which indeed grows larger and larger with each increase of telescopic power, these objects incalculably exceed all other known objects in volume, even if we suppose them to be no farther from us than the nearest of the fixed stars. There are not many irregular nebulae, yet they probably cover a greater extent of the heavens than all the others—six thousand in number together. One in the southern heavens, known among astronomers as the great nebula in Argo, surpasses the Orion nebula in easy visibility. Indeed, from my own observations, I can confirm the statement

made some ten or twelve years ago by Major J. Herschel, in a letter from India, that "the eye catches the nebula as readily as it would the Pleiades." The statement is the more noteworthy from the fact that when Sir John Herschel surveyed the southern heavens the nebula could not be seen with the naked eye. It must be mentioned, however, that in that day there was a brilliant star shining right through the heart of the nebula, which probably dimmed its apparent lustre. This star, though still in its old place, is now so much fainter as to be barely visible to ordinary eyesight.

It need hardly be pointed out that the enormous nebulae now considered must at once be placed in a class apart from others, whatever opinion we might form of their constitution. If a star-cluster were to approach so near to us as to cover the same extent of sky as the Orion nebula, it would blaze with a lustre sufficient to convert night into day. On the other hand, if the Orion nebula really consisted of stars, placed at so vast a distance as not to be separately visible, all the systems of stars we have as yet considered would shrink into utter nothingness in comparison with so enormous a universe. A parallel has sometimes been drawn between the great Orion nebula and another known as the Andromeda nebula, and also as "the Transcendently Beautiful Queen of the nebulae." Each is easily visible to the naked eye on a clear and moonless night, and each, though examined with the largest telescopes ever constructed, resisted (until quite recent times) all the efforts made by observers to resolve them into stars, or at least into discrete points of light. But here the resemblance ceases. The Andromeda nebula is comparatively regular in figure, is very much smaller than the Orion nebula, and there is no marked increase in its apparent extent, as larger and larger telescopes are directed towards it. We have seen that the irregularity of the Orion nebula is its most marked characteristic, and also that there seems to be no limit to its apparent dimensions, each increase of light-gathering power having brought new branches and outlying streamers into view. It was therefore a mistake to suppose that the course of discovery respecting the Andromeda nebula could in any way illustrate the nature of the Orion nebula. Moreover, as we shall see, very decisive evidence has been obtained of a total dissimilarity in the constitution of these objects.

Sir William Herschel's arguments respecting the Orion nebula and the other objects of the same class may be stated as follows: So long as it is possible to do so, we should be led to prefer that interpretation of observed phenomena which corresponds most closely

with the analogies we are familiar with. But in the case of the irregular nebulæ we *must* depart from all such analogies. If they are galaxies of stars, their dimensions must exceed those of all other star-systems taken together; if their dimensions correspond with those of other stellar universes, their constitution must be totally different. Having a choice of two views, each of which involves a total want of analogy with all that is elsewhere to be observed, that view seems most reasonable which does not require us to assign to these objects dimensions altogether inconceivable. For although there is nothing in the universe to be paralleled with the irregular nebulæ, we have instances, even within the range of the solar system, of objects (the comets) which are of a totally different constitution from the rest of the system they belong to. Such, then, the irregular nebulæ may be—aggregations of some unknown form of matter subserving purposes in the economy of nature which are at present altogether unintelligible to us. They may be constituted of the same material as the planetary nebulæ, but whereas these, owing to the regularity of their figure, may be looked upon as undeveloped stars, the wild and fantastic wisps of the irregular nebulæ afford no intelligible evidence of the processes they are undergoing.

During the first quarter of the present century Herschel's views were almost universally accepted among astronomers. The skill with which he had prepared the ground for the theory, and the address with which he drew illustrations of his theory from the number of nebulæ which he had observed, would seem to have forced the new views upon the acceptance of his contemporaries. He pointed to nebulæ presenting every variety of structure, and in every stage of progress from the stage of simple globes of star-mist up to a state of condensation in which scarcely any nebulosity could be perceived. Nay, he went further, and included our own sun among the number of condensing systems. Viewed from a great distance, he said, there can be little doubt that our sun would appear as a star involved in a nebulous light; for the phenomenon called the Zodiacal Light surrounds the sun on every side to a distance of seventy or eighty millions of miles, and this envelope could present no other than a nebulous appearance.

Time passed, and many theories of Sir William Herschel's, which had seemed bold if not rash at the time of their promulgation, had been established on a sure basis by the labours of his successors. But his hypothesis of star-mist, which had been freely welcomed when it first appeared, had not been of the number. "Notwithstanding the ingenuity of the illustrations and incontestable force of

reasoning by which Herschel sought to establish this bold hypothesis, it has not," said Professor Grant in 1852, "received that confirmation from the labours of subsequent inquirers which is so remarkable in the case of many of the speculations of that great astronomer. It is now generally admitted that the changes which at one time were supposed to be taking place in some nebulae were altogether illusive, having been suggested partly by erroneous delineation of the objects as they actually appeared in the telescope, and partly by the different aspects which they assumed when viewed in telescopes of different degrees of power."

It was undoubtedly to the revelations afforded by Lord Rosse's great reflector that the disrepute into which Herschel's views had fallen at this time was chiefly due.

In the first place, the planetary nebulae were found to present quite a different aspect in the Parsonstown reflector from that shown by the Herschelian four-feet mirror. There is one picture in works on astronomy which attracts the attention of the least thoughtful. A strange nebula is presented in it, resembling in appearance the face of some grotesque animal glaring through a species of halo. This object is no other than one of Herschel's planetary nebulae, as it appears under the wonderful illuminating power of the great reflector. Equally remarkable changes are observed in other instances; and in fact, Lord Rosse stated that "in every instance examined save one the planetary nebulae have been found to be nebulae with hollow centres." By resolving the great ring-nebula in *I, yra* into stars—or what appear to be such—another blow was dealt to the nebular hypothesis.

But the main contest, as might be expected, was carried on around the nebula in Orion. Here the supporters of Herschel's views found their chief stronghold. One nebula after another had been resolved into stars beneath the penetrating gaze of the great reflector. News came across the Atlantic that the magnificent refractor of the Cambridge Observatory had, in the clear American skies, reduced the great Andromeda nebula into discrete stars. Yet still, so long as the Orion nebula remained unresolved, it was impossible to oppugn successfully the views of Sir William Herschel. "With an anxiety natural and profound," says Professor Nichol, "the scientific world watched the examination of Orion with the six-feet mirror, for the result had either to confirm Herschel's hypothesis, in so far as human insight could confirm it, or unfold among the stellar groups a variety of constitution not indicated by those in the neighbourhood of our galaxy."

At length the news came that the nebula had yielded. The first account of the resolution of the nebula was conveyed in a letter from Lord Rosse to Professor Nichol. "I think I may safely say," he wrote, "that there can be little, if any, doubt as to the resolvability of the nebula. Since you left us, there was not a single night when, in the absence of the moon, the air was fine enough to admit of our using more than half the magnifying power the speculum bears. Still, we could plainly see that all about the trapezium is a mass of stars; the rest of the nebula also abounding with stars, and exhibiting the characteristics of resolvability strongly marked."

And thus, said astronomers, doubt and speculation vanish from this subject for ever. The new fact proves that to be real which Herschel deemed incomprehensible. "And now,"—again I quote Professor Nichol, for indeed I am here dealing with what others have said, and not with actual facts—"now the astronomer can adduce no justification of the assertion that any nebula, however stubborn, ought to be interpreted contrary to the analogy of all other known objects of its kind."

So firmly did the persuasion become fixed in astronomers' minds that Herschel had been mistaken, that it is almost impossible to take up a book on astronomy written between the years 1848 and 1864 without finding attention called to the new views which had replaced those he had upheld. There were one or two, amongst others the late Admiral Smyth, who thought the change of view over-hasty; but in the general rush of opinion against Herschel's theory of star-mist, the voices of those who still supported it were lost.

On a sudden Herschel's opinion was justified. It had taken long years of patient observation to overthrow his theory, but it was restored to favour by an observation which did not occupy five minutes. It is to the spectroscope, the most wonderful instrument of modern research, that we owe the complete rehabilitation of Herschel's theory of star-mist. A very few words will explain the whole matter to readers who remember the three fundamental laws of this new mode of investigation, viz.: that first, light from a burning solid or liquid source gives the rainbow-coloured streak of light commonly known as the *prismatic spectrum*; secondly, when vapours surround such a source of light, the rainbow-coloured streak is crossed by dark lines; and thirdly, when the source of light is gas, there is no longer a rainbow-coloured streak, but merely a finite number of bright lines.

Dr. Huggins had been engaged with Professor Miller in a careful spectroscopic examination of the brighter fixed stars. These physicists had succeeded in establishing a series of facts more

interesting and surprising, perhaps, than anything which had before been revealed to man.

It occurred to Dr. Huggins that if the new analysis could be applied to objects so faint as the nebulae, it could hardly fail to afford important revelations respecting their structure.

The apparatus he made use of was one constructed by Mr. Browning, F.R.A.S., the optician, with the express object of giving a spectrum of a distinctly marked and brilliant appearance. The nebula selected for observation was a small planetary one in the Dragon. I quote with a few verbal alterations Dr. Huggins's own account of the result: "When I had directed the telescope armed with the spectrum apparatus to this nebula," he wrote, "I at first suspected that some derangement of the instrument had taken place; for no spectrum was seen, but only a short line of light. I then found that the light of this nebula, unlike any other extra-terrestrial light which had yet been subjected by me to prismatic analysis, was of definite colours, and therefore could not form a spectrum. A great part of the light is monochromatic, and so remains concentrated in a bright line occupying a position in the spectrum corresponding to its colour. Careful examination showed a narrower and much fainter line near the one first discovered. Beyond this point, about three times as far from the first line, was a third exceedingly faint line."

Here, then, at once was the most absolute proof that Herschel had been perfectly justified in supposing that the planetary nebulae are gaseous. Nothing but a luminous gas can give a spectrum of bright lines; and therefore, so far as this question was concerned, no further inquiry was required.

But before passing on to mention the results obtained when other nebulae were examined, we must inquire what is the gas of which this nebula is composed? Had any other mode of inquiry but spectroscopic analysis been employed, it would have been idle to ask such a question; but the wonderful powers of the analysis are equal to answer even such a question as this. From the position of one of the bright lines, it is inferred that the gas nitrogen is one of the constituents of the nebula; another line indicates the existence of the gas hydrogen in that far-off system; the third line has not yet been associated with any known terrestrial element, though it is near one belonging to the metal barium and still nearer to one belonging to oxygen; a fourth line occasionally seen belongs to hydrogen.

Dr. Huggins examined a large number of the planetary nebulae,

obtaining in each case a spectrum which indicates gaseity. In some cases only one line could be seen, in others two, more commonly three, and in a few instances four. When these lines were seen they invariably corresponded in position with those already described. The single line sometimes seen corresponded with the brightest line of the three; and when a second line was visible, this also was no new line, but agreed with the second brightest line in the three-line spectrum.

The fourth line was first seen only in the spectrum of a very bright small blue planetary nebula, but was later observed in other cases, and especially in the great Orion nebula.

So far we see that Sir William Herschel's views have been abundantly justified. The planetary nebula of which he said that they are most probably gaseous have been shown to be so. The Orion nebula, respecting which he expressed a more certain opinion, and on which he founded so confidently his much-vexed theory of star-mist, has at last supplied confirmatory evidence of Herschel's acumen. When Huggins was observing the planetary nebulae, Orion was not then visible at night. It was not until several months had passed that he was able to apply his spectroscope to the analysis of this famous object. We may imagine that he came to the examination of the spectrum with some anxiety as to the result. "The telescopic observations of this nebula," he says, "seem to show that it is suitable to a crucial test of the usually received opinion, that the resolution of a nebula into bright stellar points is a certain indication that the nebula consists of discrete stars." A simple glance resolved the difficulty. The light from the brightest part of the nebula, the very part which under Lord Rosse's great reflector blazed with innumerable points of light, gave a spectrum identical in all respects with that which Huggins had obtained from the planetary nebulae. Thus, what had been deemed boldness in Herschel—namely, that he should have associated the wildest and most fantastic nebula in the heavens with the circular and (in ordinary telescopes) almost uniformly luminous planetary nebulae—was unexpectedly confirmed, after the stellar theory of the great nebula had been maintained for years, and apparently established by direct observation.

There, for several years, the matter seemed to rest. In 1867, it is true, the present Lord Rosse announced that parts of the Orion nebula seemed manifestly stellar in constitution; but the general result that the great nebulous mass is gaseous seemed hardly to be shaken.

But within the last two years a series of observations have been made, marvellous in their nature and promising to lead to results throwing entirely new light on the great nebula in Orion. A method of research which in former times would have seemed utterly impossible—its very conception so wild and fanciful as to resemble the dream of a distempered mind—has been applied, which promises to give in the first place far more perfect views of the nebula than any yet obtained, and then to give a searching system of analysis by which the nebulae may be in the most effective manner examined piecemeal, so that varieties in the constitution of its various parts may be recognised, if any such exist.

What would have been thought even by such men as Sir W. Herschel, Laplace, or even Newton, had the idea been suggested by which a prepared plate should replace the retina of the eye, and instead of the ordinary time for vision, an hour or two hours or more should be employed in receiving on that artificial retina a picture of a faintly luminous celestial object? If the idea could have been for a moment regarded as more than a wild and visionary fancy, what would even such men have thought if it had been further suggested that the artificial eye thus prepared might be employed to *see* rays which the ordinary eye can never see, nay, even to determine the nature of the substance from which such rays come?

Not to deal further with the wonderful *nature* of the photographic method applied to the investigation of the Orion nebula—a subject which requires full treatment separately, on account of its own intrinsic importance—I proceed to inquire what this method has revealed in regard to the question whether the great nebula is or is not a mass of self-luminous vapour.

Professor Draper, of New York, sent over to England, some two years since, enlarged positives from a negative on a square inch of glass, in which a wonderful amount of detail was shown. In the enlarged positive the exceedingly delicate details, clearly discernible in the negative, could not be perceived, and although, even in these imperfect views, the features of the nebula could not possibly be mistaken, some persons in this country who had tried but failed to accomplish what Dr. Draper had achieved, were not above asserting that the markings in the views sent arose simply from imperfections in the plate, which chanced to have an arrangement resembling that of the luminous masses which form the Orion nebula. Recently, however, Dr. Draper has taken the only worthy revenge he could take for these petty insults; he has obtained still better negatives

(for one of them the exposure lasted no less than two hours and seventeen minutes), from which more satisfactory enlargements have been formed—and now we have photographs of the nebula which even the most envious of unsuccessful rivals have been obliged to accept as valid representations—albeit the negatives themselves are far better, nay, are altogether more correct representations of the nebula than the finest drawings yet made even with the most powerful telescopes.

Wonderful, however, though this is, a far more important achievement is one which Dr. Draper and Dr. Huggins have obtained with equal success—the photographing of the spectrum of the great nebula. For thus not only is an observation in effect made which can be repeated, as it were, by every one who examines the photographed spectrum, but more is thus shown than the eye can see, and moreover peculiarities distinguishing one part of the nebula from another can be recognised, which, though they might be perhaps discernible by the eye, could hardly be regarded as demonstrated but for the use of this self-recording method.

Now here, strange to relate, we get evidence by which the conclusion which had been generally accepted is shown to be not altogether just. The nebula is seen to be in great part gaseous, and where gaseous to shine in the main with the tints described above; but parts of the nebula are not gaseous, and those portions which are so are not all constituted in the same manner. For both Dr. Draper and Dr. Huggins find portions of the nebula, and especially the more condensed parts which lie to the left (in the ordinary telescopic view of the nebula) of that portion which is called the Fish's Mouth, to give a continuous spectrum—in other words, the same spectrum which we obtain from a star,¹ or of a star-cluster. This is the spectrum arising from a glowing solid or liquid mass, or if from a gaseous body then the gaseous body must be in a state of great compression. For my own part, indeed, I believe that the rainbow-tinted spectrum derived from the Orion nebula by no means indicates that the source of light is other than gaseous—so that we may describe the condensed parts of the nebula in Orion as shining with lustre indicating stellar or sun-like constitution. We may then find here the explanation of the bright points of light seen by Rosse in the brighter parts of the Orion

¹ I say here the same spectrum, though, strictly speaking, the spectrum of a star is not continuous, but consists of a rainbow-tinted streak crossed by dark lines due to absorption by the stellar atmosphere. But with the open slit used by Drs. Draper and Huggins to obtain the photograph of the spectrum of the Orion nebula, such dark absorption bands could not possibly be seen. They are not seen, in fact, in the spectra of star-clusters.

nebula—in these parts the gaseous matter would seem to have already aggregated into stars or suns.

But the stars thus forming must be immersed in the glowing gas forming the general substance of the nebula. We might infer this independently of observations tending actually to prove it. For it would be absurd to suppose that the nebula is a flat surface, constituted in one way in one part and otherwise in another. We must always remember this in observing objects like comets, nebulae, star-clusters, and so forth. We have a view of them from one side. Viewed from any other direction they would appear differently, no doubt; but they would still present the same general characteristics. We often find them spoken of as if they were regarded as flat objects which we see from in front, or square to their surface, so that if viewed edgewise they would appear as mere lines. But, when we find parts of the nebula in which stars seem to be congregated, with nebulous matter above, below, and on either side in the field of view, we must remember that nebulous matter lies also in all probability (certainly, one might fairly say) between us and the stellar aggregation, as well as on the farther side.

As evidence of this, we may note that when in Dr. Draper's photographic experiments the slit of the spectroscope was placed across the trapezium, one of the hydrogen lines shown in the spectroscope was of the same length as the slit, a duplication of effect being noticed where it intersected the continuous spectrum of the trapezium stars. On this Dr. Draper remarks that, "if this effect is not due to flickering motion in the atmosphere" (an explanation which may be at once dismissed, as the effect would certainly have been recognisable in that case all along the bright lines), "it would indicate that hydrogen gas was present even between the eye and the trapezium."

Varieties of gaseous constitution are also indicated in different parts of the nebula. "In the case of two other faint lines in this vicinity," says Dr. Draper, speaking of the brighter part of the nebula, "I think the lines are not of the length of the slit, one being quite short and the other discontinuous. If this observation," he proceeds, "should be confirmed by future photographs of greater strength, it might point to a non-homogeneous constitution of the nebula, though differences of intrinsic brightness would require to be eliminated."

Again, variety is indicated (a different kind of variety) by the differences between the photographs obtained by Dr. Draper and Dr. Huggins. Speaking of a bright line, not visible in the ordinary spectrum (belonging in fact to the ultra violet portion), which is shown

conspicuously in Dr. Huggins's photographs, Dr. Draper remarks that he has not found that line, though his photographs show other lines which Dr. Huggins does not appear to have photographed. Dr. Huggins says, indeed, of other lines which he expected to find, "if they exist in the spectrum of the nebula, they must be relatively very feeble: I suspect, indeed, some very faint lines in this part of the spectrum" (between the most refrangible of the lines visible to the eye and the line just referred to, "and possibly beyond the more conspicuous photographic line. I hope by longer exposures and with more sensitive plates to obtain information on this and other points." Dr. Draper considers, and it seems to me justly, that the difference between the results obtained by himself and Dr. Huggins may be due to the fact that the slit had been placed on different regions of the nebula, though part of the difference may have resulted from Dr. Huggins's employment of a reflector and a prism of Iceland spar, whereas Dr. Draper used a reflector and a prism of flint glass.

It is manifest that we have in the application of photography to the gaseous nebulae a new and potent means of research. A remark applied by Dr. Huggins to the use of photography in obtaining star-spectra, may probably be applied with even more force here. "We shall, perhaps, underrate," he says, "the importance of a knowledge of the ultra violet" part of spectra, "if we regard these photographs as simply adding so much in length to the visible spectrum; for there are reasons why a knowledge of this part of the spectrum may be of exceptional value to us." If, as is probable, the luminosity of the gaseous portion of the Orion nebula is accompanied by but a relatively small proportion of heat, then the rays from the violet and ultra violet part of the spectrum are likely to give us much more complete information respecting the constitution of these nebulous masses than can be derived from the visible part of the spectrum. Still, it is well to remember that should the ultra red part of the spectra of nebulae be able to convey information supplementing or adding new force to information otherwise derived, we may entertain good hopes that that part also of the spectrum may be effectively studied. The researches and discoveries of Captain Abney, though they have not yet shown how the ultra red rays may be used as effectively (for rapidity of action, &c.) as the ultra violet, have at least shown that they can be used; and we may well believe that the methods which, even now, when this department of the photographic art is in its infancy, have enabled Captain Abney to photograph a kettle of boiling water in the dark by

means of its invisible heat radiations, may hereafter be developed to give photographs of the ultra red spectra of stars, and to show lines (if such exist) in the ultra red part of the spectra of the gaseous nebulae. When we remember, however, that there are no visible lines in the yellow, orange, or red, we may reasonably doubt whether any exist in the ultra red.

Certainly Dr. Huggins's remark seems thoroughly justified by what has been already done in this direction. "It is not, perhaps, too much to hope," he says, "that the further knowledge of the spectrum of the nebulae afforded us by photography, may lead, by the help of terrestrial experiments, to more definite information as to the state of things existing in those bodies."

The inquiry may prove to be far more wide-reaching than those might imagine who view it merely as relating to the question how the gaseous or partly gaseous nebulae are constituted. It may well chance, as long since suggested by Prof. Clark of Cincinnati, and as more cautiously hinted by Dr. Huggins, that in the varieties of constitution observed in the irregular nebulae and the evidence such varieties afford of progressive change, we may find not merely direct evidence of the development of suns and sun-systems from great masses of nebulous matter (the luminous star-mist of the Herschel theory), but even what would be a far more important and impressive result—actual evidence of the development of the so-called elements from substances really elementary, or, at any rate, one stage nearer the elementary condition than are our hydrogen, nitrogen, oxygen, carbon, and so forth. The peculiarity of the spectral indications of the presence of nitrogen and hydrogen in the nebulae is, that only one line of nitrogen and two or three lines of hydrogen are discernible, instead of the complete spectrum of either element as seen under any known conditions, seems suggestive of what may be called a more elemental condition of hydrogen and nitrogen. If it should prove hereafter that in different parts of the great nebula of Orion (or the inquiry may be more successfully pursued with the great nebula in Argo), hydrogen and nitrogen can be traced in gradually varying forms, up to those giving the complete spectrum at some known pressure and temperature, we should not only be able to form some conception of the actual condition of various portions of the great nebulous mass, not only be able to recognise something as to the progressive aggregation of different portions of the mass into suns and sun-systems, but we should learn something as to the conditions under which hydrogen and nitrogen, and perhaps other so-called elements, are formed. Nor can I doubt that, should this

prove to be the case, the inquiry would presently be found associating itself with those other inquiries by which Rutherford, Secchi, Draper, Huggins, and others have been led to recognise the existence of progressive stages in the development of suns themselves. If, for instance, the stars can be arranged in a series whose first term is represented by the blue-white stars, of which Sirius and Vega are the type; the second by yellowish stars, of which Capella and our own sun are typical; the third by orange stars, like Arcturus; and the fourth by red stars; and if of these the bluish-white are the youngest (in development, of course; we speak not of absolute age), and the others more and more advanced, we may well believe that the careful study of objects like the Orion nebula, with the new means now available, may bring us to the knowledge of yet earlier terms in the series, indicating the various steps by which gaseous matter aggregates into embryonic suns, these into bantling orbs, which develop (as time-periods, measureless by man, pass onwards), into suns like Sirius and Vega in growth, and thence to the condition which our own sun has attained.

In conclusion, I would note how abundantly the diverse views, about which I spoke at starting, and the inquiries to which those rival views led, have justified Herbert Spencer's teaching that no answer was ever yet given by science which did not lead to new and closer questioning. On one side and on the other the controversy swayed as fresh evidence on either side was obtained; but science was not content at any stage of the inquiry to rest and be thankful. Now, when so much new knowledge has been obtained, and when so many doubtful points have been disposed of, we are further than ever from actually understanding the mystery of the great gaseous nebulae. But if we find more than ever about which we are in doubt, we see more than ever how much fresh knowledge may be hoped for as we push forward new inquiries.

RICHARD A. PROCTOR.

BIRDS OF BEAUTY AND OF SONG.

THE dove, in its larger aspects of "gentleness" and "constancy," has, of course, no place in this article, but, as one of the most popular of all the poets' standards of beauty, deserves conspicuous precedence. The softness of its plumage—"the soft rich plumage of the dove"—is a poetical proverb; and the tender expression of its eyes—as seen by the poets—"an affirmation that is unto them as an axiom." Pity, Truth, Peace, and Plenty are all "dove-eyed;" and so, too, is the Morning; and so, too, are half the women of poets' homage. And on Cunningham's authority we may accept their colour as *blue*. Peace, Pity, Love, and the Hours have also "the wings of the dove," and these (on the testimony of many poets) are *white*, or "silver." The wings, indeed, are a frequent point of comparison, and associated invariably with happiness and affection in their most beautiful aspects.

"The graceful neck" is specially admired, but, above all, that lovely play of opaline tints which makes the dove's throat and breast so surpassingly lovely—"various as the dyes on the dove's neck;"—

Its hues, gay-varying as the orient beam
Varies the neck of Cytherea's dove;

"like a dove's neck she shifts her transient charms." It is, nevertheless, the whiteness of the dove, the "dove-like candour" of Parnell, that most attracts the poets. White has always been the emblematic hue of innocence and truth, so the doves of the poets may be said to have prescriptive right to it. They are "silver doves," like to "new-fallen snow," "snowy birds" "of milky hue;" and beyond this, a conjunction of silver, snow, and milk, whiteness can hardly go. Crashaw, indeed, extends this colour to its feet—"When will it suffer its white feet to rest?" he asks. But his bird, it is true, was the Dove of Heaven; while Moore's pigeons,—

With their rich restless wings, that gleam
Variously in the crimson beam
Of the warm west—as if inlaid
With brilliants of the mine, or made
Of tearless rainbows, such as span
Th' unclouded skies of Pepsistan—

are only "Lalla Rookh" pigeons, and not "the dove" proper of poesy.

Nor can the note of the dove be denied a sentence in a notice of "Birds of Song," for many call its cooing "a song," while Kirke White even says it "warbles." But as a rule, except, of course, when it is only melancholy, the dove's voice is described as "mellow," "mellifluous," and "melodious," that "makes music that sweetens the calm," or "softly blends with the general quire of woodland harmony."

By far the most beautiful of our English songsters is the skylark's cousin, the woodlark. It is allowed on all hands to be the rival of the nightingale; by many it is considered its equal, and by some its superior. But the woodlark neither "sings at heaven's gate," nor does it "lean its breast until a thorn" to sing; and being otherwise devoid of poetical accessories, heraldic associations, or mythical honours, the woodlark does not receive from the poets the recognition it deserves. It has only the beauties of nature to set it off, and in the artificial avifauna of poetry does not therefore occupy a place of honour. For the poets always prefer for admiration those birds that have legendary merits, rather than those which nature has most delighted to adorn. Thus the exquisite kingfisher finds scarcely an admirer, but the "silver" doves of an Horatian ode are punctually passed on from poet to poet as a joy for ever. So, too, the skylark, being said to awaken the day and to soar up to the sun, is smothered with musical compliments; while the woodlark, the very seraph of the sylvan choir, can hardly win a word of praise. But the woodlark's grievance is also a positive one, for there can be very little doubt that many of those poets who really heard the singing of which they are so enraptured mistook the woodlark for the nightingale, and thanked the wrong bird.

The poets who actually refer to the woodlark by name are Shensstone, Burns, Lyttleton, Cunningham, Scott, Wordsworth, Thomson, Montgomery, Dryden, Hemans, Keats, and Mary Howitt; but how many of these meant the bird they name, it is difficult to say. Scott evidently did not know it, or he would never have said it "twittered;" and there is reason for suspecting that Hemans and Cunningham, who speak of the woodlark soaring out of sight while singing, were in error as to the songster they compliment: while the references of Wordsworth, Mary Howitt, and Keats are too indefinite for inference—"the soft woodlark;" "the woodlark in the sandy fern;" "when the woodlark's song poured from the leafy spray." There really remain,

therefore, only Shenstone and Burns, who are attracted by the sadness of the bird's note—

Smit with undissembled pain,
The woodlark mourns her absent love.
Oh ! nought but love and sorrow joined
Such notes o' woe could wauken :
Thou tell'st o' never-ending care,
O' speechless grief and dark despair ;
For pity's sake, sweet bird, nae mair,
Or my poor heart is broken !

Leyden, who is in love with the softness of its song—

The woodlark breathes in softer strain the vow,
And love's soft burthen floats from bough to bough ;

and Gilbert White and Thomson, who note the great compass of the woodlark's song—

Unseen the soft enamoured woodlark runs
Through all the maze of melody.
A woodlark, o'er the kind contending throng
Superior heard, runs through the sweetest length of notes.

These poets, it seems certain, meant the identical bird which they specified; but of the others it seems to me a justifiable inference from other points of their natural history to say that they either use "woodlark" merely in the sense of "wood-bird," or that they mistake it for the skylark. It is a pity this should be so, for the poets could not have found in all the range of British birds another so deserving, from its rare song, its delightful sylvan life and engaging character, of their just admiration.¹

But the skylark requires no adventitious aids to popularity and honour. Shelley has sweetly enshrined the bird that Rome's legions so terribly glorified; and every other poet before and after him has been glad to borrow an easy line or obvious metaphor from the skylark's song or flight.

Classifying these references—and there are hundreds—I find they fall under four heads: (1) "the morning lark," which awakens the dawn and afterwards salutes it; which also awakens mankind, setting them a special example of early rising, and, while cheering the first rustic at his toil, dries its own dewy wings in the rosy eye of dawn; (2) "the merry lark," which, whether as a bird of spring or summer,

¹ Wordsworth has also a "sand-lark," which "chants a joyous song," but it is not easy to guess what bird he meant. It is a unique specimen of its species.

is always carolling a glad song of good spirits and love ; (3) "the soaring lark," that scatters its music in showers from the clouds, that flies up to the sun and, beyond it, to heaven's gate ; (4) "the low-roosted lark," that sings descending to its lowly nest and its loving mate.

As "the morning bird," "matin bird," and so forth, the skylark fairly divides honours with the cock. Both are said to have matin peals, and be ploughman's clocks,¹ messengers of morn, sentinels of day, and heralds of the dawn. Each awakens the morn, salutes it, announces it, and welcomes it.

That the skylark sang in the dark was known to many besides Chaucer.² Thus Milton has it singing *before* "the dappled dawn doth rise;" Thomson, "ere yet the shadows fly;" Burns, "'twixt light and dark;" while Cunningham hails it "carolling to the *evening*."

But the majority know it as the "bird of light," and, averring that the skylark "can never chant her sweet notes in the dark," make it an inseparable accident of daybreak and sunlight. The aggregate of their images in this aspect of the skylark are compendiously set forth in Alexander Wilson's couplet of plagiarisms—

Springs from the grassy lea, or rustling corn,
Towers through dull night, and wakes the coming morn ;³

for it may be accepted as inevitable, that when the lark does not upspring from the dewy grass, she does so from the corn, and also that while soaring skyward she welcomes the approach of daylight.

It is curious in this connection to note how needlessly the poets waste the poetry of nature in always insisting upon night being "dull," "dismal," "sullen," and so forth, simply because the lark and the dawn are "bright." If all poets were equally in sympathy with Nature, some of them would have been in sympathy with Longfellow, the poet who "heard the trailing garment of the night sweep through her marble halls, and saw her sable skirts all fringed with light from the celestial walls;" who felt her presence, by its spell of night, stoop o'er him from above,—

The calm, majestic presence of the night,
As of the one I love.

¹ The merry larks are ploughman's clocks. —*Shakespeare*.

² Altho' it were not day by houres two,
Yet sang the larke. —*Chaucer*.

³ But could any second poet have said such a thing as *awaking* an object already *in motion*—"awakes the coming morn'?"

O holy Night ! from thee I learn to bear
 What man has borne before ;
 Thou lay'st thy finger on the lips of Care,
 And they complain no more.
 Peace ! Peace ! Orestes-like I breathe this prayer,
 Descend with broad-winged flight ;
 The welcome, the thrice-prayed-for, the most fair,
 The best beloved night !

Why did they not occasionally make the lark thank the night—bid a kindly good-bye to darkness—sing a “God speed you” to the retreating shadows—chant out the moon and stars? or describe it as exchanging with an equal gratitude the gifts of night for those of day, and taking a promise from darkness of due return as soon as light should have become intolerable, thus making the lark a link between the hours of silence and the hours of song? Byron's sweet welcome to Hesperus “bringing all things good,” above all “bringing to the young bird its mother's brooding wing,” is more in harmony with nature than all the rest of the poets' clamour against “horrid” darkness and “sullen” night. What, indeed, would larks, or any other little birds, do if the sun lit up the twenty-four consecutive hours, and the miracle of Ahaz' dial were ordained in perpetuity! Yet the poets persist in making the bird delighted at its escape from night.

Moreover, it is only with a very moderate degree of ingenuity that the same idea is so often re-feathered. When Shakespeare has said—

Lo ! here the gentle lark, weary of rest,
 From his moist cabinet mounts up on high,
 And wakes the morning ;

and Milton's two passages—

Now the herald lark
 Left its ground nest, high tow'ring to descry
 The Morn's approach, and greet her with his song,

and—

To hear the lark begin his flight,
 And singing, startle the dull Night
 From his watch-tower in the skies,
 Till the dappled dawn doth rise,—

there is apparently nothing left for a hundred and fifty other poets to say ; but the two greater poets' stanzas are shivered up into bits, and (like lizards' tails in the poets) each fragment lives again as the nucleus of another stanza, and “the solid bullion of one sterling line, drawn to French wire, will through whole pages shine.”

As awakening mankind, the lark is purely poetical ; for a very

small proportion of men and women, after all, sleep out in the fields; it is only indulged in by those Hurdis, intelligences who respect the proverb—

Rise with the lark, and with the lark to bed,

but who omit to note the fact that larks often sing late into the night, and get out of bed at two in the morning; or, more usually, go to bed and get up *according to the state of the weather!* The skylark is, in fact, a bird of very irregular habits, and by no means a pattern in early rising to other birds.

That it cheers the rustic and "the hearty hynd" at his work we may accept without hesitation on the word of Burns, Clare, and Ramsay. But they, of all poets, ought to have known that every lark does not sing continuously "all day long," but only by flights, so to speak, and that it does not return to its nest, as ploughmen do, once a day—that is to say, in the evening—but about once every fifteen minutes. It is a mistake, I think, to imagine that such errors as these increase the charm of poetry.

That the skylark dries its dewy wings in the rosy eye of morn is a sweet and simple idea, but loses much of its freshness after frequent repetitions, especially when poets reproduce each other with such unflinching accuracy as do Burns and Cowper.

The second important aspect of the poetical lark is "the merry lark," that "glads the skies," that "chants fu' gay," that "sings, 'Rejoice! rejoice!'" and so forth.

There is a madness about thee, and joy divine
In that song of thine;
Joyous as morning,
Thou art laughing and scorning;
Thou hast a nest for thy love and rest,
And though little troubled with sloth,
Drunken lark, thou wouldst be loth
To be such a traveller as I.
Happy, happy liver,
With a soul as strong as a mountain river,
Pouring out praise to the almighty Giver.

This "flitter-winged" endeavour of Wordsworth to accompany the sky-searching flight of Shelley's skylark is, apart from its apostrophe of "drunken lark," noteworthy, as representing a favourite idea of the poets that the skylark is a pious bird. One of the oldest poems written in readable English contains the lines—

Who is't now we hear?
None but the lark so shrill and clear;
Now at heaven's gate she claps her wings,
The morn not waking till she sings,

And so, through all succeeding centuries, the lark has soared to "heaven's gate," and, soaring, has sung her "glad hosannas," "matin prayers," "full anthems," "psalmody," "her Maker's praise;" and sometimes in lines of very pleasing fancy, as Rogers's—

The lark was up, and at the gate of heaven
Singing as sure to enter ;

Jean Ingelow's "thanking the Lord for a life so sweet;" and Mackay's—

Singing in heaven's blue cope,
A thing too happy ev'n to hope.

Apart from the piety of the lark's song, the happiness and merriment which it expresses commend it to the poets' favour : —

The heart's slow grief, which wastes the child of woe,
We hear not in the skylark's morning song.

The hour at which it commences to sing, its first impulsive upspringing, the object with which it is supposed to soar heavenwards, and the rapidity of its notes, all combine towards the poet's idea of gladness. It is "the early April lark," that "up-darts his flight from the green April corn" to "salute the gay return of spring." It is also "the lark of May," that "doth gild with his song the summer hours," and, "his summer anthem sung, trembling drops into the corn." It is, in fact, a bird of sunshine and of happy days.¹ As Warton says,—

If a cloud should haply lower,
Sailing o'er the landscape dark,
Mute on a sudden is the lark ;
But when gleams the sun again
O'er the pearl-besprinkled plain,
She mounts, and, lessening to the sight,
Salutes the blithe return of light,
And high her tuneful track pursues
'Mid the rainbow's scattered hues.

It is curious that so many poets should have called the skylark's note "shrill;" but from the frequent conjunction of that epithet with "loud," I am led to think that the repetition of the word is due partly to "unconscious plagiarism," and even perhaps arises from an error of memory. Spenser says, "Shrill as loud as larke," using the first word as a verb; but Burns, Scott, Thomson, Coleridge, Cook, Beattie, Gay, and, it may be, others, call the song itself "shrill," in a context that conveys the idea of loudness as well. It is true that the adjective has in poetry a most astonishing

¹ The skylark will sing on a fine day all the year round.

range of meanings—in Scott notably—but the explanation of its frequency with regard to the skylark which is here offered is, at any rate, plausible.¹

In its third² aspect, as “the soaring lark,” this favourite of the poets receives praise enough to make even the eagles envious. It is not, of course, a fact that the skylark soars to any prodigious height; for one thing, its zigzag ascent and staccato descent seldom occupy twenty minutes from start to finish. But the poets can set no limits to its flight, for do they not call their own muse “lark-winged”?—“Invisible in flecked sky,” “sky-searching,” “bird of the sky,” “in the one white cloud,” “in ecstasy from the cloud,” “on the fringe of the cloud,” “amid the clouds,” “beneath the morning clouds,” “above the morning cloud.”

Soaring higher, they “in rapture through the ether rise” (*Garth*), “the song and songster are in ether drowned” (*Lcyden*), and “they pour their notes into the sun” (*Barry Cornwall*); they are “lost in the sun” (*Keats*), and (*Gray*)—

Lessening from the dazzled sight,
Melt into air and liquid light.

Soaring still higher, they reach “heaven’s gate,” and then, their mission fulfilled, descend to the ground again, “pouring,” as they drop down from stage to stage of their flight, “music in a shower,” “sprinkling music from the sky,” “mocks the tired eye and scatters the loud note;”—

Lo how the lark soars upward and is gone,
Turning a spirit as he nears the sky;
His voice is heard, though body there is none,
And rain-like music scatters from on high.

In its fourth general aspect the skylark is no longer “the bird of the sky,” that “swells the choir at heaven’s gate,” the emblem of aspiring hope and pious ambition. It is now “the low-laid lark,” a groundling, the neighbour of creeping things and comrade of pedestrian mice, a symbol of that humility which raises Christian virtues to so supreme a height, which is at once the column from which faith reaches the altar-steps of God, and the wings that bear true piety “above the sky:”—

¹ It is also curious that several poets mention a “mountain lark.” Is it possible that their familiarity with the phrase, “the mounting lark,” led to the poetical creation of a new species?

² (1) “The morning lark;” (2) “the merry lark;” (3) “the soaring lark;” (4) “the low-roosted lark.”

With Thee
O let me rise
As larks, harmoniously,
And sing this day Thy victories ;
Then shall the fall further the flight in me.¹

Descending to its "lowly nest," it becomes also, in the poets, nature's hieroglyph for pleasure, which, though it may start on its career with such boundless horizons, yet is soon called down again to earth, being itself of the earth; also for that sweetest of all happiness, the happiness of home, which charms back every wanderer to the same dear spot, let the freedom and the fascinations of unlimited space be what they may.

This, therefore, may be accepted as the chief moral aspect of the poet's skylark. As the bird of morning it inculcates that admirable weakness of early rising; as the merry lark, sets an example of cheerfulness under cheerful circumstances; and as the soaring lark, typifies an easy thankfulness. But as the lark that—

Soars highest from the earth,
Yet ever leaves the lowest nest,

it affords such pasturage for the moralist as few other birds can offer. "The lark's descending trill" has more metaphorical possibilities than the ascending song, and "the lark down dropping to his nest" enlists the sympathy of men and women more readily than when it "pours its anthem unto the sun," and "is lost in him."

Thou, simple bird, dwellest in a home
The humblest, yet thy morning song ascends
Nearest to heaven.

So completely does the allegorical and immaterial side of the skylark engross the poets, that the practical but equally poetical character of the bird's nature is overlooked; and but for Hemans, Montgomery, West, and notably Grahame—who versifies in his "Birds of Scotland" the natural history of the skylark—the fact of the cock bird singing to the hen, flying back to her side at intervals, and eventually giving over singing altogether in order to help to feed the young ones, would have been neglected altogether. Yet, after all, the lark, let it be anything else, whether a ploughman's clock or a chorister at heaven's gate, is a husband and a father, and acts as such.

Then with the dawn
Upsprings her mate, and wakes her with a song.
His song full well she knows, even when the sun
High in his morning course is hailed at once

¹ Herbert, *Easter Wings*.

By all the lofty warblers of the sky :
 But most his downward course she loves,
 Slow the descent at first, then by degrees
 Quick and more quick, till suddenly the note
 Ceases, and like an arrow-fledge he darts,
 And softly lighting, perches by her side.

But now no time for hovering welkin high
 Or downward-gliding strain ; the young have chipped,
 Have burst the brittle cage, and gaping bills
 Claim all the labour of the parent pair.¹

These are real live larks ; they could be eaten on toast. But compare this with Burns's fustian :—

The laverock in the morning she'll rise from her nest,
 And mount to the air with the dew upon her breast,
 And with the merry ploughman she'll whistle and sing,
 And at night she'll return to her nest bock agin.

Now, if there is a *dull* human being on earth, it is the adult ploughboy, so that Burns was possibly romancing deliberately when he makes the *hen lark* get up in the early morning to go out *singing*, and *not return till night!* It is quite possible also that Scotch hen-larks may be unnatural idiots who prefer having addled eggs ; but let this be as it may, Burns' fancies are not nearly so poetical as Grahame's facts.

Among the secondary aspects of the poets' lark is the caged bird, and its pathetic foot of sod, on which standing "as if it could be measured by acres," and the roof-board above it were "heaven's blue cope," it sings "with overflowing bill." To quote Herbert's line, written with a far different application,—

He doth defy
 With his poor clod of earth the spacious sky.

It stands also as the symbol of "happiness," which has a "skylark's wing," and typifies time pleasantly spent : "the moments fly on skylark's wings" (*Montgomery*). "Ay ! those were days when life had wings, and like the lark that," &c., &c. (*Moore*). It is the emblem of Hope in many poets—of the Muse of poetry, "The lark-winged Muse" (*Dyer*)—particularly *sacred* poetry "The sacred poets, on the wing like mounting larks to the new morning sing" (*Dryden*) ; and "by special appointment," as it were, is the emblem of Chaucer—"The skylark in the dawn of years,"—Cowley, and—Burns.

On the whole, then, the skylark has a great deal to be grateful for. "Much, however, that has been written is but an amplification of the golden line, 'Hark ! hark ! the lark at heaven's gate sings ;' and

¹ Grahame, *Birds of Scotland*.

not a little is an exaggerated statement of the height" (about a thousand feet) "to which it ascends, and the time" (about fifteen minutes) "which it remains suspended in the air."¹ Moreover, it does *not* "circle" in its upward flight, but rather zigzags; nor does it "close its wings and drop from its airy tower," but descends, as it were, in stanzas. Further, it is not by any means the earliest of the birds, and sings its matins irrespective of the sun's appearance, while it also sings in the dark, when birds of more regular habits are respectably abed. Penultimately (and unfortunately for poetical metaphor), its song swells as it rises and sinks as it falls, while the open sky is by no means essential for its melody, the caged bird running through exactly the same length of delicious notes as when free. Finally, the "ventriloquism" of the lark's voice is often due to an unsuspected fact, that while the listener is blinking up into the sunny sky "to see if he can see the lark," the lark is sitting singing in the grass behind him!

In poetry linnets are associated with larks, and this with a frequency that has no parallel in all the bird-lore of the bards; but why they should be associated it is not very easy to conjecture, unless it be that the poets simply intended the conjunction to express a comprehensive epitome of "the country side:" for the two birds represent very different phases of rural scenery, and do not seek in nature that intimate companionship which is thrust upon them in verse. Nor, apart from this very conspicuous "constellation" in poetry, does the linnet challenge personal attention. It is always "about," so to speak; and we find it therefore accompanying the lark morning, noon, and night, in spring and in summer. The smaller bird, it is true, does not "soar" with the lark, but on the lower levels is always to be heard singing with it, and, even in Dryden, in the dignified relation of "rival."

As a rule, however, it is the "artless," "simple" linnet, with a "random," "careless" strain, which it "chirps," "chuckles," and "twitters"—a regular piece of hedgerow furniture, and as invariable an ornament of green bushes as the daisy is of the meadow. And just as the poets cannot have a blue sky without a skylark to break the blank of it, or a blasted "oak" without a raven to rhyme "croak" to it, so in every country place we may depend with tolerable certainty on finding "the linnet o'er the flowering furze poured out profusely," or "starting all about the bushes." It is a useful, harmless little creature, without any very distinctive features either of plumage or of mind. A modest sobriety of colour is its chief

¹ *British Birds in their Haunts.*

personal characteristic ; a general contentment with its circumstances its chief virtue.

With that exquisite sympathy which beautifies every line Jean Ingelow writes about nature, that poet introduces the little child talking with the linnet :—

And show me your nest with the young ones in it,
I will not steal them away ;
I am old ; you may trust me, linnet, linnet,
I am seven times one to-day.

Hurdis, on the other hand, one of the most grotesque and "infelicitous" minds that ever tried to translate nature into blank verse, gives the reader the idea that the happy, inoffensive little linnet half deserved to be shot for not being a busybody or a nightingale. It is true that later on he speaks of the wounded linnet "lingering life away in silent anguish," but this does not give any sense of 'sympathy' to the following :—

So sings the summer linnet on the bough,
And pleased with the warm sunbeam, half asleep,
The feeble sonnet of supine content
To his Creator warbles, warbles sweet,
And not contemned, till some unfeeling boy,
His piece unheeded levels, and with shower
Of leaden mischief his ill-uttered song
Suddenly closes.

Having neither heraldry nor mythology to fall back upon for points of special identification, the poets can make only general use of the blackbird.

"It sounds well enough in Cowper's song," says Prior ; and to the majority "the blackbird" is, like primroses or sheep, an inseparable accident of "the country," and put in to finish off "a brake" or a hawthorn bush, just as a plasterer might clap a knob on to the top of a gatepost. It is a very safe bird to use, for it is a bird of morning—

The blackbird and the speckled thrush
Good morrow gave from brake and bush,

of noon—

The merle in his noontide bower
Makes woodland echoes ring,

and of evening—

Blackbirds join the shepherd's lay
At close of day.

The seasons, also, are alike to it, for it is "the oracle of spring,"

"whistles through flower-crowned June," "trolls his rich notes in autumn," and in winter—

On the leafless tree,
All woe-begone, the lonely blackbird sits.

Finally, it sings both in fine weather and in wet. It is difficult, therefore, for the poets to make any mistake as to time or place, and so we find "their blackbird pipes in every tree."

In their compliments to its voice the poets are very liberal, and a score might easily be cited who have expressed their admiration of the strength and richness of its flute-like notes. But, after all, there is no "blackbird" in the poets. There is only one songster more: for, taking the whole of their references at a glance, there is nothing said that actually individualises the bird—except Phillips's "yellow bill" and Drayton's "golden bill." As a rule, it is merely a rural detail, like leaves on trees or grass in meadows. That the passages in which it is referred to are often very beautiful there is no question about, but this does not alter the fact that the poets are not in sympathy with the bird, that its name suggests no more to them than "thrush" or "linnet" or any other woodland song-bird's name, and that they miss giving life to it.

Yet in nature it is a bird of very marked individuality, and, as an ornament of the country the whole year round, specially conspicuous among our feathered folk.

In poetry it is only the *alter ego* of the thrush—for the thrush throws a blackbird shadow, and the notes are in perpetual antiphony, whether as "blackbird and thrush," "mavis and merle," or "ousel and throstle." This blending of identities works to the detriment of the blackbird, for the thrush is accepted by the poets as the better half of the twin-bird. This may be because the blackbird is black—a colour the poets detest; or because the thrush is "russet"—a colour the poets delight in; or it may be because the thrush is more often seen than the blackbird, and therefore credited with being more often heard. But, whatever the reason, the fact remains that these two delightful birds owe much of their poetical honours to the poetical fiction of their being inseparable companions.

The thrush of the poets, viewed as a complete individual itself, is a "mottled" personage of a "greedy" temperament, but "joyous" withal. Its song is very variously described as "mellow" and "shrill"—"exquisite" (*Keats*), "albeit ill" (*Montgomery*)—"mild," but "bold"—"soft-piping" (*Cook*), although "loud-shrieking" (*Darwin*)—"clear" (*Shelley*), yet "stammering" (*Montgomery*). The truth is that the thrush's song cannot be described in a single

phrase, for, as Savage says, "the varying bird commands a tuneful maze" which, even with Leyden's four adjectives, is inadequately described as "sweet, solemn, loud, and deep." It is a spendthrift with its powers, and idolises its own voice. Conscious that the woods are enraptured, that the evening listens, and silence waits obsequiously upon its notes, the thrush pours out its melody without any regard whatever to the scientific proprieties of music, and the result is perfection. How superbly Keats compliments it, when sorrow-stricken Apollo—

In the morning twilight wandered forth
Beside the osiers of the rivulet,
Full ankle-deep in lilies ;
The nightingale had ceased, and a few stars
Were lingering in the heavens, while the thrush
Began calm-throated !

And the god can no longer restrain his tears.

He listened and he wept, and his bright tears
Went trickling down the golden bow he held.

As the bird of St. Valentine, poor ill-used old bishop that he really was, and "the vernal thrush ;" as "the throstle that chides the sun" for not rising earlier in the morning, or "the mavis wild," that "wi' many a note sings drowsy day to rest ;" as "the joyous thrush," "glad as the sunshine and the laughing sky," or "the love-bird" that "deplores her speckled treasures," the thrush is a winsome bird ; but it is a pity that the poets, considering how they belaud the ungrateful vagrant nightingale, did not thank it for the courage of its constancy, or dissociate it more conspicuously from the very dissimilar blackbird.

How much alike in habits, form, and size,
The merle and mavis ! how unlike
In plumage and in song ! The thrush's song
Is varied as his plumes ; and as his plumes
Blend beauteous, each with each, so run his notes
Smoothly, with many a happy rise and fall.
How prettily upon his parted breast
The vividly contrasted tints unite
To please the admiring eye ! so broad and soft,
And high and low, all in his notes combine,
In alternation sweet, to charm the ear.

"Finch" is a term which the poet applies conveniently to all "the commoners of air" that are not sufficiently distinguished by traditional repute or other peculiarity for specific designation.

Clear Summer has forth walked
Unto the clover sward, and she has talked
Full soothingly to every nested finch.

But, specifically, there are four finches in poetry—the goldfinch, bullfinch, chaffinch, and “mountain finch.”

The goldfinch, “music’s gayest child,” is, for some reason or another, not well spoken of. The poets must needs draw a moral from it; and just as they chide the butterfly for being “gay,” so they seem to reproach the goldfinch for being “painted.” The “gaudy” goldfinch, and “finch of crimson face,” seem somehow to become phrases of reproach, as do Chaucer’s “gaillard he was, as goldfinch in the shawe,” Gay’s “the goldfinch in her Sunday gown,” and Dryden’s “gaudy pride of painted plumes.” In Cowper’s parable of “Pairing-time anticipated” it is the goldfinch that brings all its neighbours into trouble—“a finch whose tongue knew no control.”

Yet there is a pleasant admiration for it expressed here and there “in its bower of apple blossoms,” or when “on a thistle’s tuft nibbling he sits;” and it is of the goldfinch that the poet speaks when he says,—

O ye who never taste the joys
Of friendship, satisfied with noise,
Fandango, ball, and rout;
Blush when I tell you how a bird
A prison with a friend preferred
To liberty without.

Striking, therefore, a balance between favourable and unfavourable opinion, it would seem as if the goldfinch, though admitted to be a bird both of beauty and of song, were not altogether to the poets’ taste; and Keats’s lines express, as nearly as possible, the general indifference to the goldfinch’s more decisive claims to regard:—

Sometimes goldfinches one by one will drop
From low-hung branches, little space they stop,
But sip and twitter and their feathers sleek,
Then off at once as in a wanton freak;
Or perhaps, to show their black and golden wings,
Pausing upon their yellow flutterings.

The bullfinch fares better than its gayer congener, for there is a unanimity in gentleness towards the bird which is very engaging; and, indeed, the subdued harmony of its plumage, the tender modulation of the bird’s sweet half-uttered notes, and its quiet winning ways when at liberty, all combine to commend the philosophic little bullfinch to a gentle regard. But there are not a dozen references to it by name in the whole range of the British poets.

One have I marked the happiest guest
 In all the covert of the blest.
 Hail to thee far above the rest
 In joy of voice and pinion ;
 Thou, linnet, in thy green array,
 Presiding spirit here to-day,
 Dost lead the revels of the May,
 And this is thy dominion.

Such is Wordsworth's charming apostrophe to the greenfinch—

The linnet green of May,
 Flitting to each blooming spray,

of Phillips, and the "yellow linnet" of Dyer. But the poets' "linnets" were of a very mixed kind, and the greenfinch, therefore, is hardly sufficiently individualised to constitute the species.

The chaffinch lives by name in perhaps half a dozen poets ; a merry, restless, simple little bird, of dainty-coloured plumage, and unrivalled skill in nest-building,—

Well disguised
 With lichens grey, and mosses gradual blent,
 As if it were a knurle in the bough.

In his "Birds of Scotland," Grahame gives "the shilfa" all due prominence, and in Cowper also the chaffinch appears as a bird of "Scotland's realm forlorn and bare." Indeed, I question whether Scotchmen will consider that the poet's compliments to their bird condone his incivility to their native country—

A desert, where
 Not even birds can hide.

As a thing of beauty, the swan is of course a favourite ornament in poetry ; but it would scarcely be expected that it should be even more conspicuous as a bird of song. Yet such is the case. Moreover, a considerable proportion of the poets' references to the beauty of the swan are only in association with the legend of Leda's love, and the swan's classical dignity as "the waggoner of Venus." The natural swan, therefore, as compared with the mythical bird, may be almost said to be neglected.

Milton's admirable lines—

The swan with archèd neck,
 Between her white wings mantling, proudly rows
 Her state with oary feet,

awakens innumerable echoes all down the aisles of poesy ; and the stereotyped phrase for compliment of the bird's stateliness is handed

on from poem to poem. Byron, Shelley, and Thomson each add a grace in their description of the angry swan; but otherwise the swan in its "majestic" aspect is not availed of. The startled swan gives Montgomery and Scott the opportunity for an admirable simile, and Keats takes the first movement of the swan—"a motion soft as rest"—upon the water as his ideal of "tender grace:"—

The swan, soft leaning on her snowy breast,
When to the stream she launches, looks not back
With such a tender grace.

But these recognitions of one of the most exquisite features of an English water scene are all too few. Nor to the swan at rest, "contemplative and still," are there adequate references. Keats's "white swans that dream so sweetly," and Wordsworth's phrase, "anchors her placid beauty," are the only two of notable grace. Yet it is worth remarking how the beauties of all these quotations are due to an unmistakable personal observation of the object in nature; for comparing them with the poverty of the mass of references to the "silver swans" with which fancy provides the poets, we obtain a striking instance of the superiority as poetry of images provided by nature over those provided by the poets themselves. The whiteness of the swan, a simple fact in nature, seems to have in verse an inseparable association with Leda's adventure, as if swans became white from Jove assuming that form, and borrowed their snowy plumage from the accident of the god's avatar. But the bulk of the poets' swans are the tuneful ones; and any one ignorant of the truth might easily suppose that this bird was chiefly remarkable for the sweetness of its prophetic melody. It "warbles," "carols," and "chants" a song which, if melancholy, is always sweet, and which is variously described as a "doleful note," "defunctive music," "requiem," "anthem," "dirge," "sweet harmony."

O tuneful swan! O melancholy bird!
Sweet was that midnight miracle of song,
Rich with ripe sorrow.

A lonely swan

Warbled his death-chant, and a poet stood
List'ning to that strange music as it shook
The lilies on the wave, and made the pines
And all the laurels of the haunted shore
Thrill to its passion. Oh! the tones were sweet,
E'en painfully, as with the sweetness wrung
From parting love.

If it were a nightingale there would not be much more to say. Yet the bird that the poets are speaking of is the same that is known to naturalists as "*the mute swan!*" In metaphor, "youth" is typified by the wild swan, while the singing bird is variously employed to set forth Shakespeare, Virgil, Pindar, Keats, and Cowley.

Swans sing before they die : 'twere no bad thing
If certain persons died before they sing.

Poetry is conspicuously indebted to heraldry in the matter of "the halcyon." A remote past has bequeathed the—

Bird of calm that sits looking on the charmed waves,
and which, dead,—

Shows the change of winds with his prophetic bill ;

and in the days of emblazoned shields and tournament devices, "the halcyon" was one of the most popular of crests. From the heralds the poets received it, and as they received it, transferred the sea-calming, wind-foretelling bird to their verse. Of the real bird, the kingfisher, they seem to have known nothing—except that (sometimes!) it was "blue," very blue, "sapphire," and that it fished. Now and then they ventured to "localise" the bird, as in Darwin's—

From osier bowers the brooding halcyons peep,

and Cunningham's—

On the isles with osiers drest
Many a fair plumed halcyon broods ;

but this does not occur more than five or six times in the whole range of the poets, and even then occasionally with disastrous effect. For instance, when Cowper says, "Lovely halcyons dive into *the main* ;" or when Shelley writes,—

Upon a drooping bough with nightshade twined,
I saw two azure halcyons clinging downward,
And thinning one bright bunch of amber berries
With quick long beaks, and in the deep there lay
Those lovely forms imaged as in a sky.

What he *did* see it is of course now impossible to inquire, but it is quite certain that he never saw kingfishers clinging to a spray and

¹ "The scarlet plume of the halcyon."—*M. Howitt.*

eating the berries on it. Or when Savage thus recklessly makes the halcyon an aquatic nightingale :—

When winter halcyons, flickering on the wave,
Tune their complaints, yon sea forgets to rave ;

Loud winds turn zephyrs to enlarge their notes,
And each safe nest on a calm surface floats.

The preference, however, is always given to the heraldic fowl "that broods round foamless isles," whose natural solicitude even the pitiless sea respects, and whose "floating raft" is rude Boreas's special care.

And wars have that respect for his¹ repose
As winds for halcyons when they breed at sea.

This tradition of the kingfisher charming the seas to tranquillity and ensuing it, naturally suggests "the halcyon" to the poets as a simile for sleep—

O magic sleep ! O comfortable bird !
That broodest o'er the troubled sea of the mind
Till it is hushed and smooth (*Keats*) ;
Halcyon Sleep will never build his nest
In any stormy breast (*Cowley*) ;

for tranquillity itself—

O still tranquillity, so hushed thy breast,
As if some halcyon were its guest,
And there had built her nest (*Oldham*) ;

for peace of mind—

Far, far away, O ye
Halcyons of memory,
Seek some far calmer nest (*Shelley*) ;

for quiet times—"halcyon days" and "halcyon hours"; or for both together—

Hail, welcome tide of life, when no tumultuous billows roll,
How wondrous to myself appears this halcyon calm of soul !

That it should be also an emblem of youth is not perhaps so plainly "aperte." "Oh ! halcyon youth," says Mrs. Hemans ; but it may be that the idea of "playful," so often applied to it by Shenstone, influenced the poet of the Better Land. Yet old age would seem to be more of "a halcyon" than youth, which, in other poets, is so fitly set forth as an eagle in the male, a dove in the female, sex.

¹ Oliver Cromwell.

"Who follows Homer, takes the field too late," was surely never more true than of the poets' homage to the peacock's splendour. Milton has a bird "whose gay train adorns him, coloured, with the florid hue of rainbows and starry eyes;" and thenceforward the peacock trails through verse an ever-lengthening, ever-brightening burthen of star-enamelled plumes, "all dipt in Iris' flaming bow." Constellations cluster thicker and thicker upon every feather, tint is overlaid on tint, while the combinations vary in such dazzling bewilderment that, looking back upon all the peacock's poets, one sees only a coruscation of revolving colours, like the snake in the "Lamia" of Keats. But through all there glows Milton's "florid hue of rainbows," and glitter his "starry eyes." What cruelly comprehensive phrases! Poet after poet struggles to describe the peacock, but the colours *will* run into "rainbows," and the radiance *will* gather into "stars" and "eyes." Gay has "varying dyes, and tail all gilded o'er with Argus eyes;" Falconer, "radiant wings, that glow like Juno's bird or Iris' flaming bow;" Addison, "gaudy peacocks, their tails spotted with a thousand eyes, the eyes of Argus;" Cowper, "heavenly dyes, his rainbows and his starry eyes;" Byron, "rainbow dyes;" Clare, "fain would the peacock's tail the bow express, which paints the clouds;" and so on.

Yet there are other peacock points to which the poets converge, and not without reason, for few birds afford the moralist so easy a theme. Cowper, in the following perfect passage, exhausts the peacock's vanity:—

The self-applauding bird, the peacock, see;
 Mark what a sumptuous Pharisee is he;
 Meridian sunbeams tempt him to unfold
 His radiant glories, azure, green, and gold;
 He treads as if, some solemn music near,
 His measured step were governed by his ear,
 And seems to say, "Ye meaner fowl, give place,
 I am all splendour, dignity, and grace!"

Though Longfellow certainly adds a force in his admirable lines—

The stately peacock, bolder grown,
 Comes hopping down the steps of stone
 As if the castle were his own.

But a number of poets, taking even less lenient views of the bird's pride in its own plumage, reproach it unreasonably. They even seem to grudge it its classical honours, and to exult in its defective voice. They call "the birds of Juno" "gaudy"—and in poetry it is an epithet of dispraise, or at best but an acidulated compliment,—and signifi-

cantly contrast "the *heavenly* dyes," or "the *earthly* peacock's tail;" while for its voice, they take an unbecoming pleasure in reminding us that—

Though richest hues the peacock's plumes adorn,
Yet horror screams from his discordant throat ;

and—

For his singing, doctor, *you* know
Himself complained of it to Juno.

Now everybody knows that the peacock's note is a harsh scream, but for myself I wish it had been an amplified nightingale. The contrast does not please me at all ; I see no retributive Providence in it. But the poet finds a moral in the antithesis, and cannot bring himself to waste it. More than this, he bases a theory of prejudices upon it ; for perceiving the peacock's voice to be a defect in so gorgeous an organisation, he adds it on to the nightingale as an extra virtue that it is *not* gorgeous. "You see," he says to the peacock, "what comes of being such a magnificent personage ; you cannot sing a bit, 'ne more than a boterflie.' Take an example from the little nightingale. *She* doesn't go about trailing plummy splendours after her, and listen to the exquisite result ! All the world goes out of doors to hear her, and we poets worship her." This curious distortion of an obvious moral is burlesquing Nature, not interpreting her. Had the peacock had a clarion voice, it would have been an additional gift to man from God, and I, for one, should not have hesitated in my gratitude had Philomel been feathered like a bird of paradise. The endowments and deficiencies of each set forth no doubt a wholesome lesson in the largest round hand, but I have not it in me to sneer at the peacock's "meridian splendour," "its florid hues of rainbows and starry eyes," because it has not the ecstatic melody of the shabby nightingale, nor even to prefer the lesser bird. Indeed, if it came to a question of ostracising the one or the other, I should give my shell against the nightingale, inasmuch as the peacock gives the greater pleasure to the greater number, and consents to make every country its home.

In nature, then, the poets regard the peacock with only a qualified admiration. The lustre of its plumage is dimmed, to them, by its consciousness of it ; and its stateliness becomes a "strut," or worse,— "they woon't in the winde wagge their wriggle tayles, perke as a peacocke ;" while its deficiency of song detracts, in their opinion, both from the splendour of its presence and the dignity of its gait. In metaphor it is the symbol of short-lived prosperity, of haughty "quality," and of conimon, vulgar pride. Time has peacock's wings, and pleasure shoots arrows feathered with pavonian plumes.

It is almost needless to say that in the nightingale the two points that specially attract the poets are its preference for the night, and the strain of sadness in its song.

As "night's sweet bird," that "sweetly sings the sun to rest," and "tuneful vigils keeps,"—while—

Highest oakes stoup downe to heare,
And list'ning elders prick the eare,

this bird finds endless compliments ; and yet, curiously enough, these are chiefly based on two errors, instead of the one simple, all-sufficing fact. That it sings by night is in itself surely sufficient to commend it to special admiration ; but the poets make the mistake of lauding the nightingale for being the *only* songster of the night, and for singing only by night. For there is abundant evidence in the poets that they thought the nightingale never sings by day, but only at night :—

The nightingale pours
Her solitary lays,
Nor asks a witness of her song,
Nor thirsts for human praise.

Again—

Soon as the sun forsakes the evening skies
The nightingales, &c., &c.

And among its epithets and synonyms are "evening bird," "night bird," "solemn bird of night," "evening's solemn bird," "amorous bird of night," and many others, all tending to show that the poets considered it exclusively a nocturnal songster. This is not, of course, the case, as the nightingale sings freely during the daytime ; but in the varied melody of the woods, where—

Wild music burthens every bough,

Philomela is unrecognised, or else mistaken for the woodlark, or some other songster.¹

It is "the queen of all music," "best poet of the grove," "the

¹ Here and there we find a recognition of its day song. Thus in Dryden it is "officious all the day to sing the service of the ensuing May ;" in Hurdis, "joins in the chorus of the day ;" in Broome, sings "both to the rising and the falling day ;" and in Bloomfield, "the linnards and gooldvingses," "and e'en the magpye and the chattering jea," "echo her notes" — which would only happen with these birds by day. But Dryden also calls its song "shrill," while his natural history was so very defective (and he never mentions the nightingale as a night bird) that I venture to think he was under the impression it always sang by day "like any other bird ;" while Hurdis, Bloomfield and Broome may have mistaken the blackcap for it.

queen of all the quire," "sweet queen of night," "of all song, how easily the chief!" "siren of the air:"—

When the thrush would mock her song she paused,
And sang another song no bird could do—
She sang when all were done, and beat them all.

For epithets for its song, the vocabulary of enthusiasm is exhausted. It is "melting," "a mazy running soul of melody," "a torrent of heartfelt delight," "transporting," "deluging the woods with overflow of song," "triumphant," "ebullient," "enraptured," "half ecstasy, half pain," "a strain that might almost arouse the dead, so loud, so full, so exquisite, so gushing, and so long," "as faultless and as musical as angels' strains above," "a heaven-taught tale,"—

Divine, melodious truth,
Philosophic numbers smooth,
Tales and golden histories
Of heaven and its mysteries.—*Keats.*

The poets, moreover, were of opinion that no bird, except the nightingale, sang at night. Milton tells us that every bird and beast was hushed in sleep,—

All but the wakeful nightingale.

Thomson may fairly be suspected of the same error, and so, too, Mrs. Hemans. Cowper has the lines—

Ten thousand warblers cheer the day, but one
The livelong night.

And Beattie says,—

Nought but the nightingale's song in the grove.

This, again, is contrary to the facts; for "the sedge-warbler, grasshopper warbler, woodlark, skylark, and thrush may often be heard long after sunset; while the cuckoo is frequently to be heard at midnight, and the corn-crake constantly."¹

The delightful seclusion in which "the sweet sequestered nightingale," "cloistered among cool and bunchèd leaves," "herself unseen,"—

To the moon and stars full bright,
Lonesome chants the hymn of night,

engages naturally the fancy of the poets. Keats asks, "What is more secret than a nest of nightingales?" and again and again refers to its "leafy bowers" and "leafy quiet" Milton, too—"As the

¹ See Harting's delightful book, *Our Summer Immigrants* (Bickers & Son, Leicester Square).

did Gilbert White. Byron makes his nightingale male because "the rose," which it serenades, is female; and Mallet, with an excess of poetical audacity, writes "Philomela's song—*his* evening lay!" Another pretty fact about the nightingale—namely, that he sings *seated* and *secret*—is disregarded by Broome, who speaks of—

Philomel, upborne on wings,
Through air the mournful story singing;

and even in Shelley there is a suspicion of the same error, and but a suspicion only. We read—

And soon her strain
The nightingale began, now loud,
Climbing in circles the windless sky,
Now dying music; suddenly
'Tis scattered in a thousand notes,
And now to the hushed ear it *floats, &c., &c.*

And again—

Lifts on high
The wings of the weak melody,
Till some new strain of feeling bear
The song, and all the woods are mute;
When *there is heard through the dim air*
The rush of wings, and rising there,
Like many lake-surrounding flute,¹
Sounds *overflow* the listener's brain.

Shelley in another place seats the nightingale in an "ivy bower," while Keats sings of the bird as being "up-perch'd high," Leyden as "*on high*;" Cowper lets it claim "the *top-most* bough;" Moore places it "on the *high* trees," and Campbell "in an apple tree."

If it were not for the invariable "melancholy" of the poets' nightingale, it would be very difficult to focus this bird's literature so as to bring it within the compass of a mere "vignette." But, fortunately, this strain of sadness so completely pervades the poetic songster, that "mournful Philomel," and "night's solemn bird," may be almost said to exhaust their aspects of the nightingale. "Her" wonderful voice is of course the main *fact* in their nightingale lore; but the chief, almost their only *fancy* is "her" ever-present grief. Among the epithets of sadness applied to the bird are "mournful," "plaintive," "moody," "forlorn," "sorrowing," "melancholy;" while its song is "a doleful ditty," "a sad anthem," "a soft complaint," "melodious woe," "dear to sorrow."

Though unanimous as to the fact of melancholy, the poets are not agreed as to its cause. With some it is the remembrance of her

¹ This curious line is worth a moment's puzzling over.

classical wrongs, and Lucrece in her dishonoured love appeals to it for sympathy ; so, too, the Passionate Pilgrim—

Fie ! fie ! fie ! now would she cry,
Tereu, Tereu, by-and-by ;
That to hear her so complain
Scarce I could from tears refrain ;
For her grief, so lively shown,
Made me think upon my own.—*Shakespeare.*
Mournfully bewailing,
Her throat in tunes expresseth,
While grief her heart oppresseth,
For Tereus o'er her chaste will prevailing.

With others it is the expression of an intolerable bereavement, and the nightingale is "lovelorn"—"The lorn nightingale mourns not her mate with such melodious pain ;" and when summer is flown on its swallow's wings "she is mute, for her false mate has fled, and has left her desolate." This fiction of the infidelity of the male bird is not purely a poetical invention, for the sexes certainly arrive, and presumably depart, in separate flights ; but in the poets its adaptation is rendered absurd by "their normal error" in making the *hen* bird sing.

With others it is the delicious melancholy of love. Her song is then "an enamoured tale," "and its tones so sweetly float, that love-sick maidens sigh at every note."

"Minstrel, what makes thy song so sad, yet sweet ?"
"Love, love, where agony and rapture meet ;
Oh ! 'tis the dream of happiness to feign
Sorrow in joy, and court a thorn for pain."

It is then "the amorous nightingale" that "sings spousal,"—

The bridal bird,
That 'midst the utter darkness sings ;
This her burthen soft and clear,
Love is here ! Love is here !

Milton makes Adam awake Eve with a lover's reproach for her drowsiness :—

Now is the pleasant time,
The cool, the silent, save where silence yields
To the night-warbling bird, that now, awake,
Tunes sweetest his love-laboured song.

But I am not at all certain that a little ill feeling may not be properly entertained towards a bird which comes to us when "Spring dips down her emerald urn" to see our English daffodils blow, and stays with us while "Summer fills the fields with flowers," but flies away as soon as our holly bushes are no longer of use to it, and Autumn walks afield with rustling feet. Yet it is only in Longfellow (and this is a translation from the German) that we find expression given to this well-founded grudge :—

O maiden fair ! O maiden fair ! how faithless is thy bosom !

The nightingale, the nightingale, thou tak'st for thine example ;
So long as summer laughs she sings,
But in the autumn spreads her wings ;
The nightingale, the nightingale, thou tak'st for thine example.

All other poets applaud the bird as "poet of the spring," and heralding summer with her song, the—

Light-winged Dryad of the trees,
That in some melodious plot
Of beechen green and shadows numberless,
Singest of summer in full-throated ease.

They thank her for "attuning her varied strain to *vernal* airs," "while the jolly hour leads on propitious May," and pay court to her as "the darling of the somer's pryde, fair Philomel," as "the summer's nightingale, thy sovereign goddesses' most dear delight." But none reproach it for sharing the swallow's inconstancy, or call it "vagrant" and "vagabond," as they do the cuckoo, for not staying with us. It is doubtful, indeed, whether the poets were aware that the nightingale was a summer migrant only. Waller and Carew knew it, Mrs. Hemans suspected it, but there is no evidence in the rest of the great fact of the nightingale's migration being known; while from the poets being certainly ignorant of their other great favourite, the turtle-dove, and their type of "constancy," shifting its quarters as soon as its selfish interests had been served, it is no unfair inference that they were also ignorant of the nightingale's ungrateful desertion of us.

Yet, with all their compliments, the poets, so it seems to me, do not satisfy even the poetical requirements of the actual facts, or in any measure exhaust the poetry of the natural bird. Its legendary associations are in themselves repulsive; and when we remember that it is *the cock bird* alone that sings, they become grotesque also. Nor are the unnatural merits imagined by the poets—that it scorns to mix its song with that of other birds, and that it alone of all songsters undertakes the task of gladdening the gloomy hours of night—so poetical as the real circumstances, the modesty that makes "the sweet queen of song" merge her surpassing melody into the general choir of nature during the hours of daylight, the dignity of self-respect that leads it to reserve yet one anthem more in glad thankfulness for night. Milton, Keats, and Shelley are able to grasp in its full compass the exquisite significance of the parable of the nightingale, "and Night with this her solemn bird;" but it eludes most, for they are content to reverse all Nature's meaning, and to substitute their own poor poetry for hers.

PHIL. ROBINSON.

A GIFT FROM EMERSON.

SINGULAR circumstances, associated with a promising career over which a dark cloud slowly fell some years ago, brought into my possession a treasured booklet, which by many would be thought unique. It is a small octavo, of something over eighty pages, neatly bound in half-calf, with the old-fashioned mottled paper over the boards, now dim and worn with much handling, and the plain white "end-papers" a little soiled and discoloured. It is the second edition of "Observations on the Growth of the Mind" by Sampson Reed, published by Adonis Howard, School Street, Boston, in 1829. It bears the motto from Wordsworth:—

So build we up the Being that we are ;
 Thus deeply drinking in the Soul of Things
 We shall be wise perforce ; and while inspired
 By choice, and conscious that the Will is free,
 Unswerving shall we move, as if impell'd
 By strict necessity, along the path
 Of order and of good.

On the fly-leaf it has the fluent signature "R. W. Emerson," so clear and yet so marked by swift decision ; at the top of the title-page is written "Samuel Brown," being the signature of the distinguished Scottish chemist, who added so much to that science and passed away in the midst of his years, while he was on the verge of yet more fruitful discoveries. Emerson was much in the society of Dr. Samuel Brown during his residence in Edinburgh on his first visit to this country in 1833. Brown discerned his genius, though he had not then published any of his great works. The result of that association was a deep affection, which led to a correspondence, and to Emerson being the guest of Brown during his stay in Edinburgh on his second visit to this country in 1847-8. The better to carry forward his scientific researches, Brown had before that established himself at Portobello, near Edinburgh, consequently underneath the signature on the title-page of our little book is "Portobello, February 3, 1844." Underneath the title again, and before the name of the author, is written in Dr. Samuel Brown's neat small hand : "*The pencil marks*

at admirable passages are Emerson's, not mine. S. B.;" and at the foot the words, "Brought from Emerson to me by Frank Russell." Clearly a little book with a history; and the history suggested by these details is only symbolical of a more intimate one. Readers of Emerson will remember how at one place, speaking of gifts, he asserts that the gift is utterly worthless and external, however much it might fetch in the market, if it fail to convey something of the inner nature and life of the giver. "Let the poet bring his song," he says, "and the sailor the prize which his own daring has secured beyond the sea." On this principle he conscientiously acted, and our little volume in a very especial sense conveys to us Emerson in his generous appreciation, his hospitable intent, as quick to receive, as glad to give, his affinity for the lofty and pure in thought and aspiration, and his desire to lead those he loved to the same founts at which he had himself drunk and been refreshed. "The pencil marks at admirable passages are Emerson's, not mine." We hardly needed to be told that, but we are glad to have it so definitively attested; for we are fain to think that this little unambitious book, by one whose name is now hardly remembered, had *some* share in the building up of the genius of Emerson. Evidently it *found* him at many points; there are passages which we could almost have believed him to have written in earlier years, before his style was quite so formed and condensed, and before he had in this regard so completely escaped from the influence of the pulpit. At the time the little book was published Emerson was still a Unitarian minister, regarded as a good representative of a Puritan line, which had from generation to generation supplied faithful preachers of the Word. He had had some painful experiences in loss of friends and loss of health; he had little of that kind of practical "go" and adaptability which pass for so much in the career of the popular minister. A venerable lady of those preaching days, a member of his congregation, when asked what his chief characteristic was, said, "On God's law doth he delight to meditate day and night." The death of his first wife in 1832 was a severe blow to him; and if possible threw him still more into the habit of meditation. He fell into ill health; the work of church and pulpit became burdensome to him; he longed to be free of trammels and traditions, to be able to speak whatever truth might be in him to-day, and to contradict it, as he says, to-morrow, if a new truth was made clear to him. He resigned his charge in Boston parish in 1832, and, when shortly after he had to defend himself from some aspersions, he said:—

There is no scholar less willing or less able than myself to be a polemic. 1

could not give an account of myself if challenged. I could not possibly give you one of the arguments you cruelly hint at, on which any doctrine of mine stands. For I do not know what arguments are in reference to any expression of a thought. I delight in telling what I think ; but if you ask me why I dare say so, or why it is so, I am the most helpless of mortal men. When I see myself suddenly raised to the importance of a heretic, I am very uneasy when I advert to the supposed duties of such a personage, who has to make good his thesis against all comers. I certainly shall do no such thing. I shall read what you and other good men write, as I have always done, glad when you speak my thoughts and skipping the page that has nothing for me. I shall go on just as before, seeing whatever I can, and telling what I see.

Unlike some leaders in thought, Emerson was not afraid to acknowledge how much he had been benefited by others. He was as glad "when others spoke his thoughts," as he was when he himself set seal on them in language of his own. Intuitional, and wholly undogmatic, he had no faith in any system that relied on reasonings, however strong or subtle ; he believed in instinct, or rather in inspiration, as the full development and realisation of the finer instincts. His writings are full of confessions to this purport. In the essay on "Intellect," he says:—

If we consider what persons have stimulated and profited us we shall perceive the superiority of the spontaneous or intuitive principle over the arithmetical or logical. The first contains the second, but virtual and latent. We want in every man, a long logic ; we cannot pardon the absence of it, but it must not be spoken. Logic is the procession, or proportionate unfolding, of the intuition, but its virtue is as silent method ; the moment it would appear as propositions, and have a separate value, it is worthless. In every man's mind some images, words, and facts remain, without effort on his part to imprint them, which others forget, and afterwards these illustrate to him important laws. All our progress is an unfolding, like the vegetable bud. You have first an instinct, then an opinion, then a knowledge, as the plant has root, bud, and fruit. Trust the instinct to the end, though you can render no reason. It is vain to hurry it. By trusting it to the end it shall ripen into truth, and you shall know why you believe.

Sympathy, and the self-devotion that comes of true sympathy, Emerson held to be the basis of all insight ; it was of more importance to feel deeply than to think correctly ; to act in accordance with honest feeling than to distinguish and define. He welcomed from whatever source anything that quickened impulse, that gave wings to thought and made it expansive, diffusive, benevolently self-justifying. "Only that good profits which we can talk with all doors open, and which serves all men." The spirit in such case must be eminently eclectic, however individual may be the style. With it there exclusiveness cannot exist, nor anathema, nor setting up of walls of separation ; but rather the ready tribute, the right hand to any and everyone who points, however inadequately, the upward path.

To receive was as genuine a source of joy as to give ; where there was no disparity in good-will and its reciprocities. With Emerson therefore there could be no assumption of egotistic originality, as if no man had aforesaid spoken a true word ; but rather a hearty welcome to everyone who could suggest or inspire. Probably when Emerson first read Sampson Reed's book, he was still a busy and anxious Unitarian minister. Though he had already come to pretty clear terms with himself, he had not then made his first appearance in print, which he only did in 1830, with a sermon delivered at the ordination of H. B. Goodwin, to be followed by a "Sermon and Letter" to his church—the second church of Boston—in 1832. In December of 1833, in the hope of benefit to his health as well as a desire to see the new world and some of its celebrities, he set out for Europe, sailed up the Mediterranean in a vessel bound for Sicily, went eastward to Malta, and returning saw Walter Savage Landor at Florence—"noble and courteous, living in a cloud of pictures at his villa Gherardesca—a fine house commanding a beautiful landscape." Then he visited France, and in July reached London, made a pilgrimage to Scotland, took up his abode with Samuel Brown in Edinburgh, preached a memorable sermon in the Unitarian church there, and made that historic pilgrimage to Craigenputtock to see Carlyle, and walked with him over the desolate heathery hills, and talked upon all the great questions that interested him. After he returned to America he gave lectures, he wrote essays. In 1836 his famous book on "Nature" appeared. Though only a small volume of some ninety-five pages, it was distinctly an epoch-making book. From it dates the birth of an original literature of thought in America. It is truly surprising to read that it met with a very small sale—only some 500 copies having been disposed of in twelve years. But it is one of the books that have to create the taste by which they are to be judged, and that is always a slow process—one that must be exceptionally slow among a people like the Americans, where social conditions are as yet unfixed compared with those of an old country. Oration followed oration—each emphasising the impression the former had produced of a new power in literature and philosophy—a truly original mind which could dip deep into Plato and the Oriental mystics, and yet maintain an independent foothold, transfiguring all that it borrowed and thus touching men to high practical issues. In 1840, the "Dial" was begun, and in 1841 appeared the first volume of Emerson's essays, including those on "Self-reliance," "Compensation," "Spiritual Laws," "Love," "Friendship," "the Over-soul," and "Intellect." A second series of essays appeared in 1844, containing

and more in "The Poet," "The Poet's Character," "The
 Poet's Nature," "Poet's Nature," "Poet's Nature," and
 "Poet's Nature" is a series. And this brings us up to
 the size of work Emerson, under impulse of friendship,
 made it in 1840. In 1840 Emerson wrote "On
 the Alps." He had not yet seen it: he had not seen
 even of it: we were then in the world, and civilized,
 and we were in a pit writing of him: he had not seen
 from over us in the land of a friend in Europe. The lesson
 of history, that is, that all apprehensions of truth is in
 some a matter of moral activity that is intellectual activity,
 and we must have fragments not of reason, that we must
 writing apart from emotion and imagination, that the large
 truth is the spirit, that all reason is in perpetual flow—a sea
 of spirit, which that only matters as he realizes the moral
 of his own mind. Hence we find him writing eloquently in words,
 and that is what have crossed Emerson in the first year
 preceding it entirely some of the leading ideas of his be-
 lieved which may be briefly summarized thus:—Every nature
 is a symbol of some spiritual fact. Nature becomes a me-
 ans of expression for those spiritual truths and experiences which can
 otherwise be unexpressed. Its laws also are moral laws when
 they are seen, and so they become to man the language of the
 Will, because the physical laws become moral laws the moment
 we regard or immerse ourselves. Nature has a much higher purpose
 than of beauty or language—in that it is a discipline. Now, let
 us see the most express passage on this point from Sampson Re

There is a language not of words but of things. When this language
 have been made apparent, that which is human shall have answered its ex-
 pression as it were resolved into its original elements, will lose itself in
 The use of language is the expression of our feelings and desires—the ma-
 tion of the mind. But everything which is, whether animal or vegetab-
 of the expression of that use for which it is designed, as of its own e-
 If we did but understand its language what could our words add to its m-
 It is because we are unwilling to hear, that we find it necessary to say so
 and we drown the voice of nature with the discordant jangle of ten
 dialects. Let a man's language be confined to the expression of the
 actually belongs to his own mind; and let him respect the smallest bla-
 grows and permit it to speak for itself. Then there may be poetry, w-
 not be written, but which may be felt as a part of our being. Everyth-
 surrounds us is full of the utterance of one word, completely express-
 nature. This word is its name; for God, even now, could we but
 creating all things, and giving a name to every work of His love, in i-
 station to that for which it is designed. But man has abused his powe-
 moral eyesight, and has become insensible to the real character of n-

“The Universe,” says Emerson, in his essay on “The Poet,”

is the externisation of the soul. Whatever the life is, that bursts into appearance around it. Our science is sensual and therefore superficial. . . . Science always goes abreast with the just elevation of the man, keeping step with religion and metaphysics ; or the state of science is an index of our self-knowledge. Since everything in nature answers to a moral power, if any phenomena remains brute and dark, it is because the corresponding faculty in the observer is not yet active. No wonder, then, if these waters be so deep, we hover over them with a religious regard. The beauty of the fable proves the importance of the sense, to the poet and to all others ; or, if you please, every man is so far a poet as to be susceptible of those enchantments of nature ; for all men have the thought whereof the universe is the celebration. I find that the fascination resides in the symbol. Who loves nature ? Who does not ? Is it only poets and men of leisure and cultivation who live with her ? No ; but also hunters, farmers, grooms, and butchers, though they express their affection in their choice of life and not in their choice of words. The writer wonders what the coachman or the hunter values in riding, in horses, and dogs. It is not superficial qualities. When you talk with him, he holds these at as slight a rate as you. His worship is sympathetic ; he has no definitions, but he is commanded by nature, by the living power which he feels to be there present. No imitation, or playing of these things, would content him : he loves the earnest of the north wind, of rain, of stone, and wood, and iron. A beauty not explicable is dearer than a beauty which we can see the end of. It is nature the symbol, nature certifying the supernatural, body overflowed with life, which he worships, with coarse but sincere rites.

Sampson Reed's practical application is wholly in the line of Emerson's teachings :—

It remains for us to become more thoroughly acquainted with the laws of moral mechanism. Instead of making unnecessary and ineffectual exertions in the direct attainment of truth, it remains for us to make equal efforts to cleanse our own minds and to do good to others ; and what was before unattainable will become easy, as the rock which untutored strength cannot move, may be raised by the touch of the finger.

An elevated individualism thus results which can afford to pass by trifles, and to regard others as companions and not merely as instruments of development, after the Goethean model, assured that the highest results of culture are those which are not most directly aimed at or attained. So Sampson Reed writes, in a passage which has been marked by Emerson as admirable :—

It becomes us to seek and to cherish this *peculium* of our minds, as the patri-mony which is left us by our Father in Heaven—as that by which the branch is united to the Vine—as the forming power within us, which gives to our persons that by which they are distinguished from others ; and, by a life entirely governed by the commandments of God, to leave on the duties we are called to perform the full impress of our real characters. Let a man's ambition to be great disappear in a willingness to be what he is ; then may he fill a high place without pride, and a low one without dejection. As our desires become more and more concentrated to those objects which correspond to the peculiar organisation of our minds, we shall

have a foretaste of that which is coming, in those internal tendencies of which we are conscious. As we become obedient to this law, performing with alacrity whatever duty presents itself before us, we shall perceive in our hearts a kind of preparation for every external event or occurrence of our lives, even the most trivial, springing from the all-pervading tendency of the Providence of God, to present the opportunity of being useful wherever there is the disposition.

Which may well find suggestive parallel in these words from the essay on "Spiritual Laws :"—

A little consideration of what takes place around us every day would show us that a higher law than that of our will regulates events ; that our painful labours are unnecessary and fruitless ; that only in our easy, simple, spontaneous action are we strong, and by contenting ourselves with obedience we become divine. Belief and love—a believing love will relieve us from a vast load of care. O my brothers, God exists ! There is a soul at the centre of nature, and over the will of every man, so that none of us can wrong the Universe. It has so infused its strong enchantments into nature that we prosper when we accept its advice, and when we struggle to wound its creatures, our hands are glued to our sides, or they beat our own breasts. The whole course of things goes to teach us faith. We need only obey. There is a guidance for each of us, and by lowly listening we shall hear the right word. Why need you choose so painfully your place and occupation and associates, and modes of action and of entertainment ? Certainly there is a possible right for you that precludes the need of balance and wilful election. For you there is a reality, a fit place, and congenial duties. Place yourself in the middle of the stream of power and wisdom which animates all whom it floats, and you are without effort impelled to truth, to right, and a perfect contentment. Then you put all gainsayers in the wrong.

Then again, as regards the poet, the essential thought uttered by Reed is emphasised by Emerson in one paragraph of his characteristic preface to the "*Gulistan of Saadi*," to which the reader may turn whilst we give two excerpts from the less-known author :—

The poet stands on the mountain with the face of nature before him, calm and placid. If we would enter into his views, we must go where he is. We must catch the direction of his eye, and yield ourselves up to the instinctive guidance of his will, that we may have a secret foretaste of his meaning ; that we may be conscious of the image in its first conception ; that we may perceive its beginnings and gradual growth, till at length it becomes distinctly depicted on the retina of the mind. Without this, we may take the dictionary in our hands and settle the definition of every word, and still know as little of the lofty conceptions of the author as the weary traveller who passes round in the farthest verge which is visible from the mountain knows of no scenery which is seen from the summit. It has been truly said that Johnson was incapable of conceiving the beauties of Milton. Yet Johnson was himself a living dictionary of Milton's language. The true poet, when his mind is full, fills his language to overflowing, and it is left to the reader to preserve what the words cannot contain. It is that part which cannot be defined ; that which is too delicate to endure the unrestrained gaze : that which shrinks instinctively from the approach of anything less chaste than itself, and though present, like the inhabitants of the other world, is unperceived by flesh and blood, and is worth all the rest. They acknowledge no dwelling-place but the mind.

Before proceeding to give the next extract, these words of Emerson may be quoted for the sake of clearness :—

The poet and thinker must always be—but more especially in a rude nation—the chief authority on religion. All questions touching its truth and obligation will come home to him, at last, for their answer. As he thinks and speaks will intelligent men believe.

Sampson Reed proceeds to write on the power and function of poetry morally viewed :—

The state of poetry has always indicated the state of science and religion. The gods are hardly missed more when removed from the temples of the ancients than they are when taken from their poetry, or than theory is when taken from their philosophy. Fiction ceases to be pleasing when it ceases to gain credence ; and what they admired in itself, commands much of its admiration now as relic of antiquity. The painting which in a darkened room only impressed us with the reality, as the sun rises upon it discovers the marks of the pencil ; and that shade of the mind can never again return which gave to ancient poetry its vividness and its power. Of this we may be sensible, by only considering how entirely powerless it would be if poetry in all respects similar were produced at the present day. A man's religious sentiments and his knowledge of the sciences are so entirely interwoven with his associations ; they shed such a light throughout every region of the mind, that nothing can please which is directly opposed to them ; and though the forms which poetry may offer may sometimes be presented, where this light begins to sink into obscurity, they should serve, like the sky and the clouds, as a relief to the eye, and not, like some unnatural body protruding on the horizon, disturb the quiet they are intended to produce. When there shall be a religion which shall see God in everything and at all times, and the natural sciences, not less than nature itself, shall be regarded in connection with Him, the fire of poetry will begin to be kindled in its immortal part, and will burn without consuming. The inspiration, so often feigned, will become real ; and the mind of the poet will feel the spark which passes from God to nature, imparting freedom as of enchantment. The veil will be withdrawn, and beauty and innocence silently displayed to the eye, for which the lasciviousness of the imagination and the wantonness of desire may seek in vain.

“Genius,” says Emerson, in his essay on “The Poet,”

is the activity which repairs the decay of things, whether wholly or partly of a material or finite kind. . . . I knew in my younger days the sculptor who made the statue of the youth which stands in the public garden. He was, as I remember, unable to tell directly what made him happy or unhappy, but by wonderful indirections he could tell. He rose one day, according to his habit, before the dawn, and saw the morning break, grand as the eternity out of which it came, and for many days after he strove to express this tranquillity ; and lo ! his chisel had fashioned out of marble the form of a beautiful youth, Phosphorus, whose aspect is such that it is said all persons who look on it become silent. The poet also resigns himself to his mood, and that thought which agitated him is expressed but *alter idem* in a manner totally new. The expression is organic, as the new type which things take when liberated. As in the sun objects paint their images on the retina of the eye, so they, sharing the aspiration of the whole universe, tend to paint a far more delicate copy of their essence in his mind. Like the

metamorphosis of things into higher organic forms is their change into matter. This insight, which expresses itself by what is called *imagination*, is a very high sort of seeing, which does not come by study, but by the intellect being where and what it sees, by showing the path or circuit of things through forms, and so making them transcend to others. The path of things is silent. Will they suffer a speaker to go with them? A spy they will not suffer. A lover, a poet, is the transcendency of their own nature—him they will suffer. The condition of true seeing on the poet's part is his resigning himself to the Divine *esse*, which breathes through forms, and accompanying that. The poets are thus liberating gods. The ancient British bards had for the title of their order, "Those who are free throughout the world." They are free, and they make free. . . . Therefore all books of the imagination endure; all which ascend to that truth, that the writer sees nature beneath him, and uses it as his exponent. Every verse or sentence possessing this virtue will take care of its own immortality. The religions of the world are the ejaculations of a few imaginative men.

Glancing back at the excerpt we made from Emerson's essay on "Intellect," there may be some significance in this passage from Sampson Reed:—

The highest cultivation of which the mind is capable consists in the most perfect development of that peculiar organisation which as really exists in infancy as in maturer years. The seed which is planted is said to possess in miniature the bud, the branches, the leaves, and fruit of the future tree. So it is with the mind. In the process of its formation there exists the spirit of prophecy; and no advancement can create surprise, because we have always been conscious of that from which it is produced. Not that endless procession in moral goodness and in wisdom are not within the reach of anyone; but that the state will never arrive when he may not look back to the first rudiments, to the original stamina of his own mind, and be able to say, I possessed all at the time of my birth. The more a person lives in singleness of heart, in simplicity, and sincerity, the more will this be apparent.

We shall close our extracts with one from Reed, to which Emerson has given prominence by his approval:—

There is a society yet in its coming, unseen though not unseeing, shrouded from the rest of the world by the very brilliancy of its own light, which would resist the impulse of every evil affection, and look for heaven simply in the delight of that which is chaste, pure, and holy; which, by removing that which renders duty undelightful, would draw nigh to the only source of real enjoyment; which would find its happiness and its God in the very commandments which have been the terror of the world; to which the effect is no longer doubtful, since it is made acquainted with the cause; and which, as it anticipates no reward, will meet with no disappointment.

Here we have in Sampson Reed the same hopeful, expansive, mystic expectancy, if we may name it so, which renders Emerson, as compared with many modern writers, so exhilarating, so helpful. The clear, open eye, that has looked upon so much, calmly rests, *childlike*, on the distant height, clothed with rainbows; and because

the valley is not included in the range, the height seems nigh. Vision becomes prophecy ; the beholders are in the spirit ; it is the Lord's Day with them, now and always—aspersion and act, meditation and practice, are one. Hence all truly benevolent work, all desire and effort to impart the ultimate benefits of this culture to all are welcome and joyed over, because it is a culture of the moral being. There is no exclusiveness in this kingdom ; it is the realm of brotherhood ; and work, which is true service, is worship, as with the old monks. "Only that good profits which we can taste with all doors open, and which serves all men." This is the final axiom.

No great writer can strictly be viewed alone. He is only the foremost point in a long perspective, which emphasises the fact of connection and dependence. The greater he is, the more will he suggest what preceded him. The present is debtor to all the past ; and each one is in some inexpressible way the result of all that went before. In this way histories of literature become possible ; for here too "merit lives from man to man," and he is the greatest who can afford generously to recognise it, and to claim wide brotherhood of benefit on both sides. As it has been well said that a perfect man would be isolated, a helpless creature ; so the great writer is like the mountain, you cannot tell where its base begins and ends, or what spur of apparently independent character may really be included in it. Carlyle, for example, is the product of long generations of peasant-thinkers, who carried into act that which he has pressed into vivid and picturesque words ; and these words have after all the force of actions, because of the definite stress and energy of habit of which he was by constitution and temperament made, so to say, the heir and depositary. The day-labourers in field and wood, who were noted for their thoroughness, their piety, and also their severe tongues ; the followers of the olden chiefs in their forays, rigorously independent yet loyally devoted ; the freemen of their little bourg and the ruling-elders in the Secession Churches for conscience' sake—long past generations of Carlyles—all re-live in the visionary, egotistic, dramatic, and yet severely Calvinistic and peasant-prejudiced pages of Carlyle. So, too, with Emerson ; the steeple-hatted old Puritans, so concerned about any intrusion of falsity and evil within the sphere of spiritual agency, and therefore vigorously putting down witchcraft ; the pioneer settlers in the primitive wildernesses, meditating on God's law as they wielded the axe on the giant trees ; the valiant fighters for independence ; the mystics of later days, and those who dreamt of some socialistic paradise—all in some indefinable, inextricable way intermingle themselves in his pages. He is the last

and ripest result of the main currents that have gone to form American character and life in its highest and purest aspects ; with quick affinity for all that in former times definitely presents itself as a contribution to that ; a circumstance which is expressively mirrored in the gathering made by reverent and loving hands—"In Memoriam of R. W. Emerson"—by Mr. Alexander Ireland, of Manchester, to which we have been indebted for some facts, and to which we would advise the curious and studious reader to have recourse.¹ Emerson is ideal and expansive, where Carlyle is narrow, doubtful, and prosaic. Emerson is full of hope, and believes in possibilities, where Carlyle is only despairing and sardonic ; and doubtless this difference is in some degree due to the fact that Carlyle lived in an old country and Emerson in a new one, and that the progenitors of the one had, even as regards material development, an area of undefined possibilities around them, awakening fresh hopes and giving view of new horizons, while those of the other had felt themselves often cabined, cribbed, confined. On the practical side Emerson had a wide, clear outlook, and delighted to administer, as he says, "rude electric shocks" of effort. Carlyle is critical, despondent, helpless, hopeful only of blind strength, cloud-compelling, like the ancient Jove. The causes above named may account for further points of contrast—some of which have been well indicated. "Emerson sympathised ardently with all the great practical movements of his own day, while Carlyle held contemptuously aloof. He was one of the first to strike a heavy blow at the institution of slavery. He came forward to encourage his country in the good cause, when slavery raised the flag of rebellion. He had a genuine desire to see all men free, while Carlyle only felt the desire to see all men strongly governed—which they might be without being free at all. Emerson's spirit, moreover, was much the saner and more reverent of the two, though less rich in power and humour."

In bringing forward as we have done the name of Sampson Reed in connection with that of Emerson, it will be seen that our only purpose has been to illustrate how in some specific lines his way was prepared for him. We can see where at certain points the two minds met. Emerson efficiently developed and applied what Reed had only suggested ; but Emerson would have been the last man to deny that Reed was one of those who sowed seeds, some of which rose to stately flowers in his own garden, and thus attested their inherent value and vitality.

ALEX. H. JAPP.

¹ "Ralph Waldo Emerson: Recollections of his Visits to England in 1833, 1847-8, 1872-3, and Extracts from Unpublished Letters." By Alex. Ireland. Simpkin, Marshall & Co.

SCIENCE NOTES.

THE MENACING COMET.

WHEN I wrote my Notes on the above subject for March, April, and May of the present year, I did not anticipate so speedy and practical a revival of the subject as the present comet has effected. Either several comets are following in the same track, and that track an extraordinary one on account of its short perihelion distance, or the prediction of another return of the comet of 1688, 1843, and 1880 has been outdone by the comet itself. Mr. Proctor's estimate that it would revisit the fringe of the sun at or about 1897 was by some regarded as sensational, but unless our best astronomers are deceived, it is with us again already.

Not only has it so soon reappeared in perihelion, but this visit to the sun is more intimate than either of its predecessors. Mr. Gill, the recently appointed official astronomer at the Cape of Good Hope, states that on September 17 last two of his assistants using different instruments at the same time followed it "right up to the sun's limb, when it suddenly disappeared;" that is to say, it actually struck the edge of the sun and then *apparently* plunged into it and presently came out, or reappeared.

I say "apparently," because we have positive proof that such an object is rendered invisible by the sun-glare when near to the limits of the photosphere, *i.e.* our ordinary visual limit of the solar circumference. The solar prominences, consisting of luminous solar matter, flung out to distances sometimes exceeding 100,000 miles from the "limb," are quite invisible with mere telescopic aid, and I presume that the "instruments" named by Mr. Gill were telescopes.

However this may be, there can be little or no doubt that on September 17 the comet brushed the sun so closely as to have wholly or partially plunged through some portion of the solar envelope and have suffered a corresponding retardation.

In considering the proceedings of such a body as a comet we must not forget that it is of great magnitude, and that this magnitude is made up of vaporous matter or discrete particles, and therefore a

portion of the comet may have actually plunged deeply below the outer limits of the photosphere and there have remained, while the outer portions may have travelled on, and thus the comet which I saw yesterday morning (October 18) from Brighton may be only the remains of that huge wanderer which I saw from Naples in 1843 (see Note of March last, page 374). A second comet has since been seen following in the track of the one in question. This may possibly be a detached fragment, a portion that, having plunged more deeply into the sun than the main body, has suffered greater retardation.

According to this view, some of the consequences of cometary collision with the sun have already occurred without making us aware of their presence, and therefore we need not be greatly alarmed in looking forward for those which are to follow, when the comet returns and plunges deeper still, as it may do before the ides of March are ended.

So far, the views which I propounded are confirmed. My readers will remember that (in a March Note, pages 375-6-7, and April, page 501) I disputed the prevalent notion (then entertained by eminent astronomers) that the collision of such a comet with the sun would produce any great cometary clash, and argued that we should have "merely a series of cometary dribbles, producing in the sun meteoric showers, similar in kind to those which visit our atmosphere, but of vastly greater magnitude," and that the heat thus generated would not display itself by a great solar outflash corresponding in any degree to the outbursts of the variable stars, but merely by "a dissociation of some portion of the vaporous envelope of the sun, producing an outward extension of the photosphere, which would effect an enlargement of the solar disc, the boundaries of which are those of the photosphere."

As the subject is now becoming practical, as we may possibly have the privilege of witnessing an astronomical crisis such as no human beings have ever before consciously witnessed during the periods of either history or tradition, I may recapitulate a little, and proceed somewhat further into the question of

WHAT THE COMET MAY DO FOR US.

ASSUMING that it will soon return, again brush through the solar fringe, and become still further retarded, then come again and again with ever-shortening orbit and spiral infall, till it is fully swallowed by solar gravitation, what will follow? Regarding from our own point of view, as a supposed nation of shopkeepers,

shall we gain or lose by the transaction? I believe that we shall gain, and for the following reasons :

An immense amount of heat must be generated by the retardation and final destruction of the motion of the comet, or, more philosophically speaking, by the conversion of so much mechanical motion into heat-motion. We cannot calculate the quantity of this heat, as we have only the measure of one of the two factors that will produce it. We know the velocity but not the mass of the moving body.

The fact of its present survival of the last close shave indicates something more than the mere vaporous film that has been attributed to comets. I was surprised at the brilliancy and well-defined outline of the nucleus when I saw it yesterday so finely displayed in spite of the dawn which had made considerable advance. It was very different from the long, pale, slightly luminous, phosphorescent, cloud-like object that I saw on the night of March 10, 1843, arching over more than a third of the whole vault of the visible heavens at Naples, and with no definite nucleus. The nucleus of yesterday (estimating from mere memory) was brighter than that of Donati's comet.

These differences do not refute the idea of their identity, as the same comet is liable to violent changes even in the course of a few hours. The view of the constitution of comets which I ventured to expound in my April Note, page 503, explains the possibility of this.

But to my proper subject—the action of the gradually or suddenly falling comet on the sun, or rather *into* the sun ; for the old idea of a solid sun is no longer entertained by any but curiously antiquated astronomers. What is this into which it will fall?

A huge sphere of gaseous matter which may or may not have a comparatively small solid nucleus, and this sphere composed of gases having strong affinities for each other, but held apart from violent combustive combination by the repulsive agency of their intense heat ; a holding back exactly analogous to that which at a lower temperature prevents the condensation of steam.

But steam heated above the boiling point of water, and capable of radiation becomes so lowered in temperature as to condense into water with a rapidity proportionate to the possibilities of such radiation. In thus condensing it gives out nearly a thousand degrees of so called "latent heat."

Dissociated compounds also give out such heat in combining ; water, so overwhelmingly abundant in gaseous form on the solar surface, gives out under our atmosphere 8,000 degrees, or much more under the great pressure of the solar atmosphere. What, then, must be the condition of the surface of this great sphere of dissociated matter, largely consisting of dissociated water ?

It must combine at the surface at a rate corresponding to its possibilities of radiation, and in thus continuing must give out its latent heat in the form of blazing combustion. But this very act of combination forms another and outer sphere of vapour, which acts as a protective jacket, limiting the radiation and consequent combination or out-blazing of the solar mass of inner dissociated gases. Thus are formed the photosphere and its enveloping chromosphere or chromatosphere; the photosphere being formed by the superficial combustion or combination of the dissociated gases, and this combustion limited in extent by the chromospheric jacket.

Now let us suppose the plunging of a comet into all this, and a consequent dissipation of any solidity that might be possessed by the cometary fragments, and also the necessary dissociation of any of its constituent compounds. This volatilisation and dissociation would render "latent" a portion of the heat generated by the collision, and the dissociated matter would add to the solar stores of reserved fuel.

But the heat thus generated would be more than sufficient to effect the volatilisation and dissociation of the cometary matter itself. What then would become of the vast excess of heat?

It would simply raise the existing temperature of the dissociated interior matter of the sun, and this increase of temperature would dissociate an equivalent portion of the existing compound vaporous jacket. These actions would produce an outward extension of the photospheric limit, *i.e.* an increase of the visible diameter of the sun, and at the same time proportionately diminish the depth of the vaporous jacket. This thinning of the vaporous jacket, by increasing the rate of radiation, would increase the amount of photospheric combination or solar blazing. Thus we should have a bigger sun, a more active photosphere, and a smaller degree of resistance to its radiations; all three being conditions that would combine to supply this world and the other attendants on the sun with a larger amount of sun heat.

How much greater will be this amount? Nobody can definitely answer this question, for the reason above stated, *viz.*, that nobody knows the mass of the approaching comet.

Some approximation to an estimate may, however, be made. We may safely venture to say that the total amount of heat thus generated will be but a small fraction of that of the vast existing solar dissociation reservoir. If it all flashed out at once, the effect might be the destruction of animal and vegetable life that has been predicted; but if I am right, the result will be an addition to the ordinary fuel of the sun, which will burn out slowly and steadily, with

gradual decline, until the normal state is again reached. This will probably be a work of many years, our result in the mean time being an increase of a few degrees in the mean temperature of the earth.

The effect of such an increase must be specially advantageous to our British climate, and still more so to that of Canada, Siberia, and Scandinavia, while it may be damaging to the already over-heated tropical regions, unless counteracted by the additional supply of aqueous vapour and rain. This may be sufficient to restore the ancient fertility of the Syrian and African deserts, and refill the elevated Mediterranean basin of Central Asia ; thereby irrigating the lower ground of Hindostan.

Dr. Croll attributes the great fluctuations of terrestrial climate, as displayed by the former extension of glaciers on one hand, and the existence of coal seams and corals in the now ice-bound shores of Greenland on the other, to variations in the earth's orbit, and calculates the periods of three of these cycles, extending respectively over 170,000, 260,000, and 160,000 years. I am unable either to confirm or refute these calculations, which may or may not be correct, but quite outside, or rather within these, there have been curious fluctuations of terrestrial climate hitherto unexplained.

The name "Grönland," which we literally translate "Greenland," is itself a record of this. It was given to that country when colonised by the Scandinavians, above 1,000 years ago. It then was fairly described by its name, and the remains of human settlements discovered by our Arctic explorers in regions now uninhabitable confirm the old Norse sagas, which describe these colonies.

When Ingolf with his retainers and followers settled in Iceland, A.D. 874, that island must have enjoyed a very different climate from that which it now endures, or it could not have become so popular a colony as to alarm King Harold the Fair-haired so greatly as to induce him to check the emigration by imposing a fine of four ounces of silver on all intending emigrants. The growth of its population, until it became in the 11th and 12th centuries the focus of European poetic literature, when its great poet, Snorro Sturleson, attended the meetings of the Thingvalla, or island parliament, "with a splendid retinue of 800 armed men ;" when houses and ships were built with native timber, of which remains are now to be found ; all indicate a curious change of climate. I could quote many other evidences of this if space permitted.¹

¹ In a treatise by Snorreson, an Icelander (*De Agricultura Islandorum priscis temporibus. Hofniæ, 1757*) are collected the evidences of the former growth of corn in Iceland,

This lasted for a few centuries, and may have been caused by a previous comet wheeling with the sun, or by our solar system traversing a warmer region of space. It supplies an example of the sort of difference that I think we are justified in expecting if the present comet is of respectable density, and finally makes a spiral plunge into the sun.

The first effect of a loosening of the Arctic icebergs would be a repetition in an exaggerated form of years like the present, with high mean temperatures and stormy weather but no great number of hot summer days, on account of the cooling of the Atlantic and our surrounding seas by the drifting icebergs. This first work done, we may look for a climate just hot enough to give us reliable wheat crops and to ripen grapes in favourable situations, and more steady when settled down.

The probable drawback in these latitudes may be an increased rainfall owing to the excessive evaporation in the tropics and the condensation of tropical vapour hereabouts. This would occur at the beginning of the change, and continue so long as the melting of the Arctic ice cooled our surrounding waters below the mean temperature of the atmospheric vapour. Another short Note on another question must conclude this month's gossip on this subject.

HAS THE SUN-GRAZING COMET ALREADY AFFECTED THE EARTH?

SOME additional fuel must have been supplied to the sun by the preliminary border collisions of January 27, 1880, and September 17, 1882, and this, if I am right, has produced a small instalment of the climatic effects above described. For the evidence of this as regards the first collision, I refer to my Notes in August and November 1881, where I have endeavoured to show how the abnormal weather of 1880-1 was due to increased solar activity.

Since that time the predictions upon which I then ventured have been fulfilled. We have had further excessive accumulations of icebergs in the Atlantic, so great as seriously to interfere with ordinary traffic. We have had one remarkably mild winter here, and an excessively hot summer in those parts of the earth not influenced by the drifting icebergs. Dreadful and unprecedented floods, due to the melting of Alpine snows, have devastated the plains of Lombardy, through which flow those outlets of the Alps, the Po, the Adige, &c. Heavy snowfalls, due to excessive precipitation, have imprisoned Alpine tourists, while snow has melted with abnormal rapidity, and so far, we have the beginning of a mild and humid winter here.

I am aware of the danger of predicating general climate from local instances ; my Note of August, 1881 shows how excessive heat in one hemisphere may produce the opposite effect on the higher latitudes of the other ; but all I have been able to learn concerning the recent weather of the earth, indicates an appreciable general increase of mean temperature.

An augmentation of this may be expected since September 27, and it should be most notable in the Southern hemisphere, especially in the Southern tropics, where the sun is now doing most work. We have not yet had time to learn whether such is proceeding. If it is, we may expect, after every return of the comet an increase of the same kind of climatic exaggeration, as every return will bring the comet into a position where a greater and greater amount of perihelion resistance and consequent development of heat will be effected.

OUR GIGANTIC ANCESTORS.

THE recent discovery of fossils under the foundations of Messrs. Drummond's new bank at Charing Cross has been chronicled in most of the newspapers, and curious comparisons have been made between the present population of the Strand and the cave-lion, the mammoth, the elephant, and rhinoceros that formerly took their walks abroad between the sites of the cities of London and Westminster, and there dined on Irish elks, fallow deer, and species of oxen now extinct.

But, strange as these would appear if restored to the scene, they are but modern and moderate compared to their predecessors of the country now covered by the Thames Valley. These animals would be as startling to a mammoth as would be a mammoth to a cabhorse.

If an earlier Julius Cæsar could have invaded Britain and explored the region of the Thames Valley, at the time when the oolite building stones of Oxford were in course of deposition, his commentaries on the natives would have been strange indeed.

Besides such weird and gigantic lizards as the Plesiosaurus, the Ramphorhynchus, the Streptospondylus, the Teleosaurus, the Ichthyosaurus, the Megalosaurus, &c., he would have seen that monster among monsters that has left so many of his bones in the Enslow rocks at Kirtlington Station, near Oxford. Among these were ribs of 5 feet in length ; scapula, 54 inches long ; arm bone (humerus), 51½ inches long and 20 inches broad at the thickest part ; thigh bone, 5 feet 4 inches long, circumference at upper part 46 inches. Speaking of the once-celebrated femur of the megalosaurus in the British Museum, Professor Phillips says, " Placed near the corresponding

femur of ceteosaurus, this large megalosaurian bone is like a child by the side of a giant; yet it (the child) is three times as long and as large as the femur of the largest crocodile."

An adult crocodile 9 feet long has a femur of less than 9 inches long; on the same scale the ceteosaurus with femur 64 inches long must have measured 64 feet. If the ceteosaurus was a creature analogous to the living monitor lizards, a similar comparison of bones gives it a length of 100 feet. Such an animal could scarcely turn round in Cheapside, and would entirely block the thoroughfare if standing across Regent Street, where, with the end of his tail inside a shop door on one side, he might thrust his nose through the first-floor window opposite.

This whale-lizard must have been a clumsy creature on dry land, but having no occasion to run away from devouring enemies, that was not a serious defect. Gravitation sets a limit to the magnitude of land animals composed of ordinary flesh. Beyond these limits the drag of its own weight would strain or tear it and imbed its own bones into itself. This creature probably lived in the estuaries and delta forming river mouths, moving freely enough when half immersed and its bulky carcass semifloating in the shallow turbid water that deposited upon the oolitic limestone the bed of argillaceous and sandy matter, in the midst of which its bones were found from 6 inches to 2 feet above the solid limestone rock which constituted the dry land of the period at higher levels; washed fragments of this being deposited with the bones as well as shells, carbonized wood, &c.

Its teeth indicate vegetarian food such as a marsh-loving animal would find in abundance. In this respect it is comparable to the hippopotamus; its lizard-like anatomy prevents further resemblance.

"THE MISSING LINK," WHERE TO FIND HIM.

THOSE who complain of the absence of the Caliban that they imagine should stand between man and the anthropoid apes, seem to forget or ignore the fact that monkeys only inhabit a certain zone of the earth, of the geological details of which we know but little more than nothing.

If such a creature existed we must look for him there or thereabouts, especially as all history, tradition, and archæology indicate that the human being at distant periods was an older inhabitant of the earth in subtropical regions than in the temperate zones. This is indicated by his further progress there and the evidences of his migration. He seems to have first come upon the earth somewhere on the temperate borders of the monkey zone.

When we consider the fact that, in spite of all our quarrying, mining, foundation-digging, canal and railway cuttings here in the fatherland of geology, we are still coming on fresh finds of hitherto unknown animals (such as the cetosaurus described in the above Note, the bones of which might have remained for centuries undiscovered but for excavations made in the vicinity of a railway station), it is not at all surprising that we know so little of our immediate anthropoid ancestors; and those who build any theological argument on the absence of such a find may at any moment be overwhelmed by a crushing refutation, should the projected railways through the valleys of the Euphrates or Tigris be carried out. We may then be startled by news from Mesopotamia. Should British enterprise connect this line with Cairo, *via* Babylon, Palmyra, Damascus, and Jerusalem, the prospects of such discovery would be still greater.

GIGANTIC CUTTLEFISHES.

IT is evident, after all, that the stories concerning the many-armed marine monsters are not exaggerations; even that which so fiercely attacked the crew of Jules Verne's Captain Nemo in the course of his submarine yachting cruise was scarcely over-measured. In the "Transactions of the New Zealand Institute," a specimen of the cuttlefish named *Architeuthis verrilli*, that was found stranded at Island Bay, Cook's Straits, is described. It was not quite dead, and its dimensions were as follows: Longer arms, 25 feet long each, with blades having 15 suckers on each side row and 19 on the middle row. The smaller arms, 11 feet 9 inches long and $7\frac{1}{2}$ inches wide. Head, 4 feet 3 inches in circumference; eyes, 5 inches by 4; body, 7 feet 6 inches long, and greatest circumference 9 feet 2 inches. Another, regarded as of different genus and named *Steenstrupia stockii* (generic name in honour of the naturalist Steenstrup, who has specially studied these creatures), was also found in Cook's Straits, but much mutilated. This had a body as long as the first-named, a head 1 foot 11 inches long, and an internal shell 6 feet 3 inches long. If any of my readers have ever touched the suckers on the arm of one of the largest cuttlefishes, with an internal shell of 4 to 6 inches long, he may form an idea of the horrid grasp of one of these monsters. I am not abnormally sensitive, but I doubt whether I could screw up my courage to the point of again allowing an ordinary octopus to exert upon my hand the leech-like grip of which each individual sucker of each arm is capable. The sensation is curiously screamable. A man would be overpowered even in shallow water if one of these monsters fairly embraced him.

W. MATTIEU WILLIAMS.

TABLE TALK.

EDUCATION PROSPECTS.

TO the provision made by the School Board it is attributable that the percentage of children within whose reach an efficient education is now brought has been raised in twelve years from 45 to 72 per cent. This is a highly creditable advance, and justifies a sanguine hope that in the course of another decade the full requirements of the nation may be reached. Milton's words in his *Small Tractate of Education* to Master Samuel Hartlib, that the reforming of education is "one of the greatest and noblest designs that can be thought on, and for the want whereof this Nation perishes," will then have lost their application. By that time, moreover, it may be hoped the functionaries will have learned to do "their spiring more gently," will have got rid of the spirit of bumbledom, and commenced to appreciate the feelings of the poor, and to know that the powers with which they are trusted are merciful, and not punitive. This is precisely what is wanted to render the operative classes, who are not ordinarily short-sighted to their interests, sensible of the benefits within their reach.

MILTON ON EDUCATION.

IS there, I would ask, a single member of the School Board who has taken into account the recommendations of Milton as to the kind of education to be supplied? Milton's first suggestion has been carried out, that so "many edifices may be converted to this use as shall be needful in every city throughout the land." His next counsel is that the speech of children "is to be fashioned to a distinct and clear pronunciation, as near as may be to the Italian, especially in the vowels; for we Englishmen, being far northerly, do not open our mouths in the cold air wide enough to grace a southern tongue; but are observed by all other nations to speak exceeding close and inward. So that to smatter Latin with an English mouth, is as ill a hearing as law-French." Milton was specially dealing with middle-class education, and some portion of the curriculum he

recommends, such as the learning of Italian, may be regarded as superfluous. His words are, however, of extreme importance. Especially valuable is what he says about the exercise to be afforded the pupils. Their breeding is to be equally good for peace or war; they are to learn the exact use of their weapons, and to learn "all the locks and gripes of wrestling," and to be imbued with the principles of true fortitude and patience, which "will turn into a native and heroic valour, and make them hate the cowardise of doing wrong." The wisdom and expediency of the last counsel is indescribably important. If so carried out as to disabuse the working classes of the idea that it is ignominious to be "bested," by which they mean "worsted," it would lead to a national regeneration. On the value of music Milton naturally insists. Will my readers think the better or the worse of Milton, I wonder, when I say that all that is vital in this teaching, as in that of Locke and Rousseau, is drawn from Rabelais?

THE COMET.

AT last it seems likely that science is to have an opportunity of studying the effects produced when a comet falls into the sun; for though it is not absolutely certain (at the time of writing) that the comet which was very near the sun on September 17 is the comet of 1880 returned with undue rapidity, the odds are greatly in favour of this supposition. If so, it would seem that a certain comet which appeared in 1668 returned in 1843-4, after 175 years, again in 1880 after only 37 years, then last September after a circuit lasting only two years and eight months—to return—when? This rapid falling off in the period looks ominous—for the comet, we mean. If the comet really has been retarded in this way at its two last returns, it cannot fail to be retarded still more seriously at its next and following returns. Its orbit will thus become smaller and smaller—though it is to be observed that the part nearest to the sun will not draw nearer—at least, while this part of the process is going on. At last, the orbit will be made circular by these changes. Nor will the change take long. The later circuits will be accomplished in very short periods indeed—the final circle being completed once in every $3\frac{1}{2}$ hours. Now, if a comet which only once in each circuit dips into the denser part of the solar surroundings is so retarded that its orbit is reduced from a period of 175 to one of 37 years, and then to one of $2\frac{2}{3}$ years, how much more serious must be the retardative effect on a comet which throughout its whole circuit is in this resisting region! From that time onwards the comet must draw in-

wards towards the sun, to be more effectively resisted inwards more quickly, and to be still more strenuously until the end comes, and the poor tortured comet is absorbed.

So much for the comet. Its chances of escape, even destruction, seem small indeed. Are we therefore to believe the earth's account? Are we to assume that the absorbing comet will produce such an access of solar heat that all the earth will be over-done, and the inhabitants of those which are destroyed in the twinkling of an eye? Is our sun to be suddenly, though but for a while, with a splendour exceeding a hundred times its present lustre? Such a change would be intolerable to the inhabitants of some remote system, circling around Centauri, or 61 Cygni; but scarce so to the men of science on earth: for it is hardly possible to make trustworthy observations reduced by intensity of heat to the vaporious condition. Astronomer Royal for Scotland thinks the danger is great, that the announced end of the world by fire, as predicted (it seems) by the pyramid, and now threatened by the comet, has ten to be especially mischievous to ladies who are as those "who love the lords" would wish to be. It would probably be no comfort to Professor Smyth to be convinced that the comet can do no such mischief. But to the other old ladies, and to those ladies who certainly ought not just now to be frightened about cometic dangers, it may be some comfort to learn that while Mr. Mattieu Williams points out physical reasons for scouting the idea of danger, Mr. Proctor has shown that *this* is not the kind of comet likely to do the earth any harm; though he believes the comet itself to be doomed to early destruction.

SYLVANUS URBAN.

MARRIAGE.—HOPE—TRIPP.—July 25, 1882, at S. Thomas' Church, Woodbury, by the Most Rev. the Primate, grandfather of the bride, assisted by the Ven. Archdeacon Harper, the Rev. Walter Harper, uncles of the bride, and the Rev. James Preston, Arthur, third son of T. A. Hope, Esq., of Stanton Bebington, Cheshire, to Frances Emily, eldest daughter of C. G. Tripp, Esq., of Orari Gorge, Canterbury, New Zealand, Barrister-at-Law.

THE
GENTLEMAN'S MAGAZINE.

DECEMBER 1882.

DUST: A NOVEL.

BY JULIAN HAWTHORNE.

Only the actions of the Just
Smell sweet and blossom in the Dust.

CHAPTER XXVIII.

A CERTAIN change was no doubt observable in Marion. It might have been supposed that a life so secluded and reserved as hers had been thus far, would not have encountered the novel conditions of wealth and fashion without some awkwardness and bewilderment. But it was not so. She met the Goddess of Fortune half-way, and seemed in no respect at a loss how to greet her. In fact, the only sign she betrayed of being unaccustomed to abundant worldly resources was the activity and despatch she showed in taking advantage of them; as if life offered nothing but a variety of diversions, and it was incumbent upon one who appreciated life at its true value to canvass that variety in the shortest space possible. Whether she held, further, that the variety was to be inexhaustible, or the life short, did not appear. Philip was at first pleased with her alacrity; afterwards, his pleasure was less, and his surprise greater. He had promised himself some gratification in introducing his wife to the greater society, and initiating her into its splendours and amusements: but he found, not only that his leadership was unnecessary, but that he would have to exert himself to be the leader at all. Marion was fully equal to her position and opportunities. She faced the sun unshrinkingly, and, indeed, with a smile almost as of half-contemptuous familiarity. When she referred to the simplicity and difficulty of her previous experience, it was generally to expose the humorous aspect of the contrast with the present.

"What a beautiful way venity is!" she exclaimed one day to her husband.

"Had you think so?" he inter-plied, cautiously: for he seldom could be sure, in private, whether Marion's observations would turn out profitable or not.

"It is the best assistant in the world," she continued; "it Christianises even tradesmen, and makes them self-sacrificing. And the virtuous part is, that it is not their being venity themselves, but their knowing it to be, that makes them so magnanimous. When mother and I were poor—pardon my mentioning such a thing, but as they were between ourselves—our tradesmen not only permitted us to pay our bills, but insisted on our doing so promptly: and if we got behindhand, they growled about bailiffs. But now—in! bless you, the mention of a bill hurts their feelings, and to pay one would break their hearts. It's a blessed change of heart in them: and would have been more blessed still if it had only happened to come before our change of pocket, instead of after."

"If we go on at our present rate, both they and we may relapse," said Philip, laughing. "Twenty thousand pounds capital is not twenty thousand a year."

"It is, for one year: and who knows what may happen after that? We might count in two years, even: the faith of the tradesmen would hold out so long at least."

"They don't ask us to pay now only because they know their money is safe," said Mrs. Lockhart, with her pathetic literalness. "And they don't lose anything, because our orders are larger, and their prices are higher. And you should be just as careful not to run in debt, my dear, when you are rich as when you are poor."

Marion looked at her mother with an odd smile. "I wish you'd let me forget you," she said at length. "You've been encouraging me all my life to be a woman of fashion, and now you turn against me. But I'm determined not to be baulked!"

And in truth, Marion had made a good beginning. The old house in Hammersmith had been shut up (it was her desire that it should be neither let nor sold), and they had gone into the new and improved mansion whereof Fillmore had spoken to Perdita. They kept a carriage and horses, half a dozen servants, and an excellent table; gave parties and routs to their fashionable acquaintance, and accepted the like civilities from them. It was the thing in society at moment to go to the Lancasters; Philip was a genius, besides nearly related to Lord Seabridge; Marion was charming, witty, fly up to her position; her father, it was understood, had been

a distinguished officer and a personal friend of the Iron Duke. Among the most notable of their new friends was old Lady Flanders, who not only honoured their drawing-room with her presence when the rest of the world was there, but quite often took the trouble to drop in on them informally. She had once or twice met Mrs. Lockhart in London and at the Baths, when the latter was lovely Fanny Pell, forty years or so ago; and she now came ostensibly to renew her acquaintance with that lady, and to talk over the old times. But in the midst of these amiable reminiscences, it was observable that she gave a good deal of attention to young Mrs. Lancaster, who seemed to have a peculiar interest for her.

"You like having money, Mrs. Lancaster," her ladyship remarked one day, after examining critically a new dress which Marion had on.

"I cannot deny it, Lady Flanders."

"Nonsense! A woman like you can deny anything. But you're quite in the right not to deny it. We hear a great deal from silly people about the dignity of poverty. That is just what poverty is not: poverty is not dignified! 'Tis hard enough to hold up one's head at the best of times—such arrant knaves and humbugs as we all are, and all of us except the fools know it; but on an empty pocket 'tis impossible! I recollect when I was in Egypt, about thirty years ago, meeting a Bedouin Arab who, I thought for a while, was an exception to the rule. He hadn't a rag on him, except a greasy turban and a yard of ragged cloak dangling down his back; he was as dirty as a stable floor; but he had the bearing of a prince—though not of a good many princes I could name, neither. That man (said I) is an incarnation of dignity and a type of poverty, both in one; and if he'd have me, I'd marry him to-night! What were we talking about?"

"That poverty could not be dignified."

"Ay: very true. So, just to prove my rule by this exception, said I, 'My friend, I'll give you fourpence to go up to the top of that pyramid and be back here again in five minutes.' He dropped his dignity—it was about all he had to drop, as I told you—and scuttled up that pyramid like a squirrel. He earned his fourpence, and I married his lordship." Here Lady Flanders took snuff, and added, "You may live to find out, Mr. Lancaster, that you have been too avaricious. You weren't satisfied with a wife; you must have a fortune into the bargain. Look out you don't find yourself without both some fine morning."

"Your ladyship is kind to forewarn me," said Philip, who was always rubbed the wrong way by Lady Flanders.

"You don't believe me: but you are a poet and a philosopher, and you comprehend the structure of the universe too clearly to see into your own domestic business. You don't know, at this moment, what to make of your wife's extravagance and ambition. She used to be quite different, didn't she? And you understood her character so well, you were sure prosperity couldn't spoil her.—They are all like that, my dear," she continued, turning to Marion; "they load us down to the water's edge, or below it, and expect us to dance about and mind the helm just as prettily as when we were unburdened. They don't know our weapons; they can feel them in their hearts, or in their purses, or in what they call their honour; but they can never see what strikes them, or how they are struck. I don't blame you, my dear: give him all he deserves: but I have a regard for you, and shouldn't like to see you crippling yourself in the process. But you have a head to see your way, as well as a heart to feel his impositions. I shall look for you to give a good account of him a year hence. 'Tis a pity he hasn't a title. But we may be able to get him one: I'll see about it. I have found such things very useful."

It was difficult to say what Lady Flanders meant by this kind of diatribes, which, indeed, were never more embarrassing than when she took it for granted that her interlocutor was sagacious enough to understand her. It was plain, nevertheless, that this awful old aristocrat possessed an uncomfortable keenness of insight; and that she generally put the worst construction on whatever she saw. Philip perceived that she enjoyed opposition, as giving her an opportunity for repartee, in which she was fatally proficient; and therefore seldom entered into a discussion with her. But what she said about Marion, and her general tone regarding her, appealed to a certain obscure misgiving in Philip's own mind, and made him feel more ill at ease than he would have liked to confess. He smiled as complacently as he could; but the smile was painfully superficial.

From Marion herself, meanwhile, he could obtain little or no satisfaction. He did not speak to her "seriously" on the subject, partly because he could not exactly define to himself what the subject was, and partly, perhaps, because he feared to discover that the subject, be it what it might, would turn out more serious than might be agreeable.

"You deserve credit for being so civil to that hideous old woman," he would sometimes say.

"Not at all!" Marion would reply laughingly. "Lady Flanders represents the world. I am going to be a woman of the world, and so I pay court to her. She tells me a great many things 'tis necessary I should know. The obligation is on my side."

"You are going to be a woman of the world, are you?"

"La! of course. What would you have me do? I used to be very busy washing clothes and getting the dinner, in the old times; but now I have a laundress and a cook and a housekeeper, and nothing to attend to except inviting our guests and making myself agreeable to them. When we were in Hammersmith I was what I had to be; now I can be what I please; and it pleases me to be like . . . other fine ladies."

"Could you not make yourself agreeable to your guests and to me at the same time?"

"To you? Why, you are my husband!"

"Very true, Mrs. Lancaster."

"What can be more agreeable to you than to see your wife popular in Society?"

"We thought of something better than that when . . . we first fell in love with each other," said Philip, fixing his eyes upon her.

"Something different: but was it better? or so wise? Are not a hundred people more amusing than one? At all events, we must take the evil with the good of our position. Love in a cottage is one thing, you know, and love in a palace another."

"No love at all, perhaps you mean?"

"No such love, that's all."

"Well, if you're content, I've no more to say."

"Content! How should I not be? My ambition isn't satisfied, though. I mean to be spoken of as 'the beautiful Mrs. Lancaster' one of these days. Oh, it will come to pass, I assure you! The first thing one generally says, when one is shown a fashionable beauty, is, 'What! that homely creature!'—'tis all a matter of dress and effrontery. I shall do very well. What do you think of my gown?"

"Very fine. But what about the effrontery?"

"At all events, that costs no money," said Marion, with a laugh.

Marion's social success was undeniably great. She possessed both tact and courage—two qualities not always found in company; and she had more intelligence than most of the women she came in contact with. Her figure and movement were fine, her dress was always in good taste; her voice agreeable; her face had a poignancy and variety of expression that produced the effect of beauty without being beautiful. At her presentation at Court, the Prince of Wales, who had complimented her mother more than a generation before, informed Marion that she made him wish he was young again begad! She speedily found herself surrounded by a circle

gentlemen who were only too ready to express their admiration for her; prominent among whom was the little Irish poet, Thomas Moore, who was not disheartened by the unceremonious treatment she had given him at their first interview: and she completed her conquest of him by singing a song which he vowed he had composed in her praise. Young Mrs. Lancaster was in demand everywhere: her box at the theatre and the opera was always crowded; when she rode or drove in the Row, she was attended by a retinue of cavaliers; she played cards, danced, talked politics, and, in short, ignored the inside and celebrated the outside of life. Lady Flanders looked on at it all, grinned horribly beneath her shaggy eyebrows, and neglected no opportunity of congratulating Philip on being the husband of so brilliant a woman. "You must look out for your laurels, Mr. Lancaster," she would add: "'Iduna' was well enough for the idyllic period, but you must give us something better now; make the lady elope with the Lord Chamberlain, and leave the Sea-God in the lurch." Mrs. Lockhart, on the other hand, whose nature it was always to enjoy what was good in the world, and not to see or believe in the bad, was placidly happy in the conviction that her daughter was as prosperous as she deserved to be, and as merry as she seemed. Marion was uniformly careful not to disturb the maternal serenity, though once she startled the poor lady by exclaiming, "Oh, I wish Mr. Grant were alive!" with a passionate moan in her voice like the outcry of a soul in despair.

Was anything the matter, then? Marion had no confidants, except solitude, which tells no tales. But it may be conjectured that, when she yielded to her husband on the question of the legacy, she gave up, once for all, her view of right, and set herself to adopt his own. "If Philip wants wealth," she might have said to herself, "it must be to reap the worldly advantages of it. These are necessary to his happiness; and 'tis my duty, therefore, to help him, as a wife should, to be happy in his own way. I take my law from him; I will have no half-measures: and he shall have just the fashionable, dashing, rattling wife that he wants."

Having laid down this general principle, it would be characteristic of Marion to act upon it fervently. No doubt she was far from being incapable of appreciating the charm that lies in social dissipation; but she would perhaps have thrown herself into it with less of recklessness and *abandon*, had she gained access to it by some less humiliating path. There was a pride and nobility in her that had the effect of making her give more energy and prominence to conduct which opposed her conscience than to that which was approved by

it. She startled and perplexed Philip, and fascinated him also ; he found in her a vigour and activity superior to his own. She out-Heroded Herod ; he had not suspected all this latent power ; and yet he felt that something tender and sweet and infinitely valuable was missing. There were between them no more silent sympathies and intuitive agreements. What was to be done and said, not thought and felt, was now the subject of their intercourse. Their communication was more lively but less satisfying than of yore.

What was Marion's idea and intention in this? Did she really believe that it was what her husband wanted? Logically, perhaps, she did so ; but scarcely in her heart. Women, when they are logical, generally are so in an extreme and illogical way ; as if to demonstrate how contemptible logic is. More than half her vivacity may have been assumed in order to provoke Philip into finding fault with it ; and yet, if he did find fault with it, she would profess herself at a loss to know what on earth would please him. If he suggested moderation, she would say, " No : I must be one thing or the other." If he replied, " Be the other, then," she would answer, " Too late, now I have learnt how pleasant dissipation is." And if he asked her whether dissipation were the true end of marriage? she would laugh and reply that one cannot have everything in this world.

Thus, by degrees, were these two married lovers, who had begun their career under such fair auspices, drawing away from each other : what was best in each of them was starving for lack of nourishment ; but Marion, at least, was proud enough to starve to death rather than confess to suffering. As a matter of course, since they could not meet in the only way worth meeting, they looked away from each other as much as possible. Philip tried to find consolation in his poetry ; but the faculty of happy concentration and abstraction no longer came to him as formerly. The loving and confidential talks which he and Marion had been wont to have, about what he was writing, or purposing to write, were hardly practicable now ; but, if he found the craving for intellectual sympathy too strong in him, there was always one place where he was sure to find it, and that was in the private boudoir of the Marquise Desmoines. She always welcomed him with loveliness and delightful words : she looked him in the eye and spoke to the point : he felt the immediate contact of her mind and nature, and experienced from it a secret sense of luxury and consolation. At first, Perdita used to inquire courteously after Marion ; but after a time these inquiries became rarer, and finally ceased. Nor did Philip happen to mention these visits to his wife : *what would it matter to her where he went or what he found to*

converse about? She probably had her own interests and occupations, of which he was ignorant. She would only laugh, and say that he was fulfilling Lady Flanders' predictions.

Once in a while, in the midst of all this gaiety and resonance, Marion's laugh would suddenly end in a long, shuddering sigh, and her eyes would grow hot and dry. But she would laugh again, and utter some witty, extravagant speech, if she thought her husband was observing her. And once, at night, Philip chanced to awake, and fancied that Marion was weeping, and the bed was shaken by her smothered sobs. But, when he spoke to her, she started, and declared, after a moment, that she had been asleep and had a nightmare. "I dreamt Lady Flanders had grown young and beautiful," she said, "and wore a dress handsomer than mine: and it broke my heart!" Whereupon Philip said no more.

CHAPTER XXIX.

THERE was in Perdita a strong element of adventurousness and Bohemianism, which had not as yet been so fully gratified as to lose its poignancy. A longing came over her, occasionally, to behold phases of life that would not, in the ordinary course of things, come under her observation. At such times she would regret that she had not been born a gypsy—in oblivion of the fact that although, being a marquise, she might play at vagabondage, it would not be as easy for a vagabond to experience the sensations of a marquise. The latter has the best of it.

At this epoch of our history it so happened that Perdita fell a victim to one of the periodical attacks in question. She wanted to do or see something a little beyond the boundaries of conventional propriety. What should it be? She passed in mental review all the resources of the town. There was plenty of impropriety to be had for the taking,—that was speedily evident; but perhaps it was the very wealth of the opportunities that rendered the Marquise hard to suit. Her motive being curiosity, not desperation, she did not wish to involve herself in anything that would lay her open to social obloquy; she would not risk her escapade being discovered by people she knew. Furthermore, there were many aspects of the shady side of life which she had no disposition to investigate. Between these two stools the fair explorer was in some danger of coming to the ground: when, all at once, she made up her mind that her requirements would be well enough satisfied by a visit to Vauxhall.

“ If enjoyment be your motto,” observes Corinthian Tom to his country friend in the green coat and leather gaiters, “ go to Vauxhall.” The record of the many moving exploits of those three classic worthies had not as yet been compiled ; but Vauxhall was in its glory, nevertheless. Nor could it properly be described as an improper place : improper people were to be found there, no doubt, doing improper things ; but there are few places, good or bad, in this world, of which the same might not be said. The trail of the serpent is everywhere ; but, this being admitted, all that respectable persons have to do is to ignore it. At all events, numbers of the most respectable visited Vauxhall, and were none the less respected for doing so ; but in this, as in other matters, everything depended upon the way the thing was done. The Marquise Desmoines, for example, might, under suitable male escort, have spent all her evenings at Vauxhall with impunity : and that was one reason why she had never yet been there. What she could not so safely do was to go there alone ; and it was no less an achievement than that, consequently, that she had in view. She would wear a veil, of course, and a thick one ; and she would be attended by Madame Cabot, not so much for protection as for convenience. But she would go to Vauxhall independent of the support of the sterner sex ; and it was only reasonable to suppose that she would see something worth seeing before the night was out. She made her preparations accordingly, and gave no further explanation of her purpose to Madame Cabot than to tell her that she would require her company that evening. Madame Cabot was not aware that such a place as Vauxhall existed ; and it was conceivable that the good lady might never realise, even after her return, how perilous an enterprise she had accomplished.

That evening was a fine one, and Perdita, having driven to a point near the entrance of the Gardens, and given orders to the coachman to remain there until her return, entered the grounds with Madame Cabot. The place was brilliant with innumerable lamps, and crowded with people. There was a sound of music in various directions, proceeding not from German brass bands, nor from Italian organ-grinders, but from the slim-legged fiddlers in cocked hats, who flourished their bows and wagged their heads beneath fan-shaped sounding-boards resplendent with gilding. Dancing was going on in some places, the participants being ranged in long rows facing one another, while two or more of their number manœuvred, capered, skimmed hand-in-hand down the middle, or dodged behind the lines, pursued by the rest in tumultuous procession. Elsewhere professional tumblers and gymnasts performed their feats in the centre of

noisy crowds, and a meagre young lady in wrinkled tights and short gauze skirt appeared in mid-air above the heads of the spectators, pursuing her tottering way upon a rope depending between two thick posts. Another person of the same sex, in a nondescript costume, remarkable chiefly for its spangles, was causing wonder by her affectionate familiarities with a gaunt beast which seemed to have entered natural history on its sole responsibility, though it was only a black bear with its hair shaved off. For those whose ambition prompted them to draw aside the veil of futurity, there was provided a long-bearded soothsayer in a glittering hermitage, who had spent his leisure in committing the history of coming ages to scraps of paper, which he disposed of at from a shilling to half a crown each. Around and between these various centres of interest the crowd twisted, shifted, elbowed, and threaded itself in and out, talking, shouting, whispering, laughing, and staring. Representatives of all classes were there: the country squire in green coat, white corduroys, and drab gaiters: young bloods in dark-blue coats, red-striped waistcoats, buckskins, hessians, and neckcloths: others in beruffled opera dress, with black silk tights and cocked hats: bruisers in loose brown jockeys and white-topped boots: theatrical characters, clean-shaven, with white lamb's-wool stockings and blue-and-bird's-eye kerchiefs: sharpers in rakish but threadbare attire, their legs encased in tight pantaloons tied at the ankles, thin shoes, and with rouge on their lank cheeks; women in bonnets like funnels, or huge hats and feathers, with short-waisted gowns and long gloves, stout and thin, tall and short, coquettish and timid, pretty and ugly: a mixed and parti-coloured assemblage, all come ostensibly to enjoy themselves, and few knowing whether they were doing so or not; altogether a comical, melancholy, absurd, pathetic, restless, aimless, anomalous mass of human beings, illustrating the fact that between frank barbarism and civilisation out for a holiday, the difference, such as it is, is not in favour of the latter.

After wandering about the place, and meeting with a number of trifling adventures, such as receiving proffers of gallantry from fashionable gentlemen, one or two of whom she was acquainted with, little as they suspected whose dark eyes were glancing at them behind the blue silk veil; or being swept away unexpectedly into the whirl of a country dance, in the course of which Madame Cabot's bonnet became badly demoralised; or being pressingly invited to drink beer by an hilarious party of young men and women, whose recommendations were evidently the outcome of experience;—after sundry vicissitudes of this kind, all of which greatly amused the

Marquise and made her laugh heartily—the two ladies became weary of keeping their feet amidst so much jostle and uproar, and sought out a spot where they might sit down and contemplate the spectacle at their leisure. With this purpose they made their way to a range of boxes or cabinets, facing upon a large open space, and connected behind with an establishment for the supply of rack-punch and ham sandwiches. Having rented the right of sole occupancy of one of these boxes for the evening, they made themselves as comfortable in it as the narrow and angular fashion of the chairs permitted. The lamps flaring on the front of the box left the interior in comparative shadow; and the seclusion could be increased by drawing some flimsy red curtains, which dangled from a brass rod across the entrance. Other parties were in the adjoining boxes on either side, and their conversation was indistinctly audible on the background of the prevailing hubbub.

Perdita moved her chair into the right-hand corner, in order that she might eke out the accommodation of her chair by leaning against the partition. After she had remained for some time in this position, her eyes wandering over the multiform elements of the unorganised drama before her, she became aware that some one was speaking on the other side of the thin boarding that separated her from the next cabinet. Words and parts of sentences were here and there distinguishable; but these would have had no interest for Perdita, had she not suddenly made the discovery that the voice was one which she knew. Several moments passed, however, before she was able to connect the voice, in her mind, with the person to whom it belonged. It was a woman's voice, rather low, but with a penetrative quality in it—a peculiar voice, both in timbre and intonation. Whose was it? It was, of course, impossible for Perdita to see the speaker, unless she had gone outside for the purpose. Possibly her curiosity might ultimately have led her to do this; but she was saved the trouble by presently recollecting that the speaker in question was none other than Marion Lancaster.

At first, though it surprised her, the discovery did not especially startle the Marquise. There was nothing wonderful in Philip's taking his wife to see Vauxhall, although it might not be the place which a newly married couple of their rank and disposition would most naturally visit. At this point, however, it occurred to Perdita, with the thrill of a genuine sensation, that Philip could not be there. He was out of town, having taken the coach that afternoon to St. Albans to meet the Earl of Seabridge, who had written to make the appointment on a matter of business. This Perdita happened to

know, because Philip had stopped at her house in the morning, present her with an illustrated edition of "Iduna," which had come out; and had then mentioned that he was on his way northward, and would not return before the evening of the following day. It was the first night that he had been separated from his wife since their marriage. That Marion should have chosen that very night to go to Vauxhall was, therefore, fairly remarkable. For what purpose could she have come? Was Mrs. Lockhart with her? Could Philip have been aware of her intention?

Though the solution of these problems was none of Perdita's business, she nevertheless listened very intently in the hope of hearing something that might elucidate them. It was impossible to pick out anything consecutive, the rather since what Marion said was in detached sentences, and the replies of her companion, who was apparently a female servant, were of a like character. The following bits of dialogue, however, seemed to detach themselves from the general medley:—

"I fear he has not come," said Marion.

"'Tis early yet, ma'am," replied the other. "Maybe he will be here soon." The rest was inaudible.

"Be sure you tell me if you see any one I know," Marion said after a while: "it must never be known . . ."

"No one 'ud know you, ma'am . . . so you can be easy on your score."

" . . . cannot stay here much longer. If he does not appear soon . . . it might come to the knowledge of my husband, and . . ."

Here the fragmentary sentences ceased altogether to be distinguishable, Marion having apparently removed to another part of her box. But Perdita had heard enough to convince her that something out of the common was going on. Marion had come to Vauxhall, taking advantage of her husband's absence, in order to meet some gentleman who had not yet made his appearance. Much was evident, and it was enough to place Marion in a position which, to say the best of it, was ambiguous. Perdita knew nothing to make of it. Though not prone to be over-charitable in her judgments on her own sex, the Marquise was too keen a reasoner to character ever to have supposed that Marion was capable of an intrigue. Yet here was certainly an intrigue, and it was difficult to see how it could be altogether an innocent one. Perdita made no special effort in this direction; what puzzled her was a woman of Marion's intelligence should have chosen Vauxhall in all places in the world, to meet a lover in. True, there is

kind of safety in a crowd ; and there might be particular circumstances rendering Vauxhall a desirable trysting-place in this instance : and, in short, there is never any accounting for affairs of this kind on logical grounds : they are controlled by too many unknown and unknowable conditions. A more interesting matter of speculation regarded the identity of the man whom Marion had favoured with her preference. He could not well be handsomer than Philip, Perdita thought, or cleverer, or, in a general way, more attractive. But, of course, Marion must be of a different opinion. Who, then, was to her mind the superior person ? The Marquise rapidly reviewed the names and characters of the various gentlemen with whom Marion was likely to be on confidential terms ; but one seemed about as likely as another, and none of them, to say the truth, seemed likely at all. In the midst of her perplexity, Marion and her attendant were heard to rise, and a minute later they came out of their box and walked away slowly, looking about them. It was Marion, beyond a doubt, and the attendant was a middle-aged woman in whom Perdita fancied she recognised Mrs. Lancaster's private maid, who had been formerly a servant of Mrs. Lockhart.

For a moment, Perdita had an impulse to issue forth and follow them, and see the end of the adventure. But a regard for her own dignity, as well as a sentiment of respect for another woman's secret, combined to restrain her. It was enough to know that Marion had a mystery of this kind to conceal ; and possibly (such is the waywardness of the moral sense) the revelation of that fact raised, rather than lowered, Marion in Perdita's esteem. That a woman of Marion's apparently passionate candour and simplicity should all the time be hiding so hazardous a secret, evinced a force and depth of character such as Perdita had not been prepared for. She was a woman to be reckoned with : and the Marquise admitted to herself with a curious smile that, with all her own keenness and knowledge of the world, she had been totally mistaken in her judgment of her.

And yet, after all, might not the mistake be in supposing herself to have been mistaken ? Might not Marion be the innocent victim of appearances ? Could her presence there be merely the result of a thoughtless frolic, as was the case with Perdita herself ? But against this view was to be set the conclusive testimony of the passages of conversation she had overheard. She had not overheard much, to be sure ; but much or little, it had been conclusive so far as it went ; it had proved that Marion came to Vauxhall to meet some man. What man ? Was there any man whom she could meet

innocent? Perdita could think of none. Stay! Might it not be Merton Fillmore?

It was to the last degree improbable, and contrary to reason; but it might nevertheless be Fillmore, and if so, the occasion of their meeting must be business and not love: for Perdita was tolerably convinced that she knew where Merton Fillmore's heart was. But what business, that could not be better discussed in Fillmore's office, or in Marion's house, could there be between them? or what likelihood was there that a man like Fillmore would go to Vauxhall on any consideration? There was no likelihood of it. It could not be Fillmore, and yet it must be Fillmore: Perdita wished it to be Fillmore: though whether she wished it because of Fillmore, or because of Marion, or because of herself, she could not perhaps have told.

This episode, be the significance and upshot of it what they might, had loomed so large as to obscure whatever other grotesque entertainment Vauxhall might have contained for the Marquise Desmoines; and, moreover, the sight of Marion's rashness had impelled her seriously to reflect upon her own. She resolved to go home without delay; and having tied her veil more closely about her face, and roused Madame Cabot, who had dropped asleep in her corner of the box, with her snuff-box open on her lap, she took that lady's bony arm, and they went forth into the assemblage.

Their progress was not so rapid as they could have wished. The rack-punch and other drinkables had made the crowd more noisy and boisterous, while the numbers had certainly not diminished. Perdita had need of all her wits and courage to avoid getting into trouble, while Madame Cabot was thoroughly frightened, and gave frequent vent to dismal little shrieks and moans, which had the effect of attracting the attention which Perdita was so anxious to avoid. All at once, in the midst of the general turmoil, some loud cries were heard, and there was a rush in the direction whence they proceeded. "A fight! a fight!" cried one gentleman, pressing forward enthusiastically. "A fight?—'tis a murder!" returned another. "'Tis nought but a fellow in a fit," said a third, who had mounted on a lamp-post. "He's drunk! put him out, stifle me!" exclaimed another, with the righteous indignation of inebriety. "Come along, Jack—'tis no business of ours," remarked a gorgeously attired female, seizing her companion by the arm. Meanwhile Perdita and Madame Cabot were taking advantage of the rush of the crowd in one direction to push their way in the other, which was comparatively deserted. By a roundabout way they were approaching the entrance, and had just passed a guardian of the peace, who was

thoughtfully proceeding in a direction at right angles to the scene of the disturbance, when Perdita suddenly stopped short, much to Madame Cabot's distress, and fixed her eyes upon a group that was also hastening towards the gate from another part of the grounds.

It consisted of a man and two women. The former was fashionably dressed, had rather a dandified air, and a handsome, bright, good-humoured countenance. The lady on his arm was tall, and of a fine figure; her face, which was uncovered, had a flush of excitement upon it, and her eyes sparkled. Close behind the couple followed a woman who was evidently a domestic. Perdita had no difficulty in recognising Marion, and that elegant poet and fascinating man of the world, Mr. Thomas Moore. As they passed her, she gave another of her odd little smiles.

"So much for my charity!" she murmured to herself. "Poor Philip!—allons, madame!" And she hurried Madame Cabot to the carriage.

CHAPTER XXX.

THE next day London awoke to a sensation. As early as ten o'clock in the morning, it was known that something astounding had happened; though the general public still lacked information as to what it was. Had Bonaparte escaped from St. Helena, and landed at Gravesend? Was his Majesty George the Third dead at last? Had the Pope been proclaimed spiritual and temporal ruler of Great Britain? Or had another Gunpowder Plot been discovered? City men, meeting one another on their way to their shops and offices, asked each other such questions, half jocosely, half in earnest. The people on the street caught up echoes of these dialogues, and spread them about with amplifications and variations. Up till noon, only a handful of persons knew the truth; but before sunset it was familiar in the mouths of millions. The great banking house of Bendibow Brothers had failed.

Yes, after a career of almost unparalleled success and splendour, the mighty structure, founded, nearly a century ago, by grim Abraham Bendibow, had fallen with a crash, and thousands of hapless people were involved in the ruins. Financial England was shaken to its foundations by that catastrophe: on the Continent, the news created only less dismay; but in London itself the destruction wrought by it was terribly widespread and apparent. By order of the Government, which received early information of what had happened, a company of soldiers was sent down to guard

the bank—a wise precaution, as the threatening crowd that soon began to gather in front of it proved. A very ugly and turbulent crowd it was, as London mobs are apt to be ; and in this case its passions were inflamed by the presence in the midst of it of numbers of luckless depositors, who had lost all they possessed, and were shrieking for vengeance. Was such enormous robbery to be perpetrated, and the guilty not to suffer ? A scapegoat was wanted, and must be had. And who was the thief ? Who, but Sir Francis Bendibow ? Where was Sir Francis Bendibow ? Where was the man who had made himself rich and fat on the life-blood of thousands of honest men and women ? Was he in the bank ? The captain of the company assured the questioners that he was not ; that the bank contained nothing but money, and very little of that ; and this, in due time, would be fairly divided among those who could show a claim to it. For the rest, he had orders to fire should any act of violence be attempted ; and he was ready to obey his orders. Hereupon the mob laughed, as if the defiance pleased them ; but it was evident that a few score of soldiers would not be a mouthful for such a roaring multitude, should they choose to attack. At this juncture, however, a fresh suggestion was disseminated, none knew how ; but it was caught up at once. Sir Francis Bendibow owned a town mansion, only a mile or two distant. Why not look for him there ? That was a more likely place to find him ; and if he were gone, at all events the house and its contents would remain, and be at the mob's disposal. Away, then, to the Bendibow mansion ! There were no naked bayonets and loaded musket-barrels there ; but there were valuables of all kinds to smash or to purloin, and possibly there were provisions in the larder and wines in the cellar. So off to Francis Bendibow's !

In a surprisingly short time the vast mass of men had begun to move in the direction of their new object, sweeping everything before them, and gaining new recruits at every street corner. Along the Strand they poured, a seething and howling torrent of lawless humanity, swollen continually by confluent streams streaming down the narrow streets from the north ; more than half of them, no doubt, ignorant whither they were bound, or wherefore they were gathered together, but all alike ready for mischief and exulting in disorder. Meantime the warning of their approach preceded them, and shopkeepers hurriedly put up their shutters, and householders barred their doors. Westward they roared along, appalling to see and hear, and yet grotesquely fascinating, insomuch that law-abiding and respectable citizens, beholding them, were seized with a strange

longing to cast themselves into the irresistible current, to imbibe its purpose and join in its achievements. Alas for Francis Bendibow, should he fall into the clutches of these his fellow-creatures!

As the front of the mob entered the street in which the Bendibow mansion stood, a hackney carriage was being driven rapidly out of it in the opposite direction. Before it could turn the corner, a stone, flung at random, struck the driver on the head, and knocked him off the box. At this mishap the mob set up a jeering howl, and a number of them rushed forward to see what game they had brought down. But hereupon the door of the carriage opened, and a man got out, wearing a heavy-caped cloak; an elderly man, but stout and broad-shouldered. The collar of his cloak was turned up, and the brim of his hat drawn down over his forehead, so that little of his face was visible. This man, after casting a glance towards the crowd, mounted quickly on the box, and, gathering up the reins with a practised hand, laid the whip sharply across the horse's back. A ragged scarecrow sprang at the animal's bit with outstretched hand, but the lash of the whip smote him across the eyes, and he staggered back with a shriek of agony. The vehicle was now at the street corner; but, before turning it, the man on the box, taking the reins in his left hand, passed his right beneath his cloak, and drew forth a long pistol. He levelled it at the thick of the crowd, which was now swarming before the doomed house, and fired. The ball passed through the neck of a gigantic ruffian who had just smashed one of the front windows of the mansion, and buried itself in the heart of a pallid stripling a couple of yards farther on, who had been swept along in the rush, against his own will, and without the least notion of what all the uproar was about. Both the stricken men fell; and the hackney carriage and its driver disappeared.

All this had passed so rapidly that few were aware it had occurred, or knew whence the shots came, or what damage they had done; and all eyes and thoughts being now centred on the house, no pursuit of the fugitive was attempted. The house, of course, had never been designed to stand a siege, nor did there seem to be any garrison to defend it: the doors and windows were speedily battered in, and the mob, meeting with no resistance and seeing no adversaries, crowded in pell-mell, and the work of sack and destruction began. It was speedily apparent, however, that the amount of the spoil was altogether out of proportion with the number of the spoilers—so much so that at least nine-tenths of the latter must needs come off, not only empty-handed, but without even the gratification of having destroyed anything. In half an hour the lately splendid residence of

the proprietor of the greatest private banking-house in London was gutted from cellar to ridge pole, and such of its contents as could profitably be stolen had passed through the hands of hundreds of temporary possessors, one snatching from another, until everything had vanished, it was impossible to say where, and none—save those who had been crushed, beaten, trampled, or torn within an inch of their lives or less—were in the slightest degree satisfied. In this predicament, a very obvious resource presented itself. If Sir Francis Bendibow's house could not fill the mob's pockets, there were in London plenty of similar houses which might, in the aggregate, realise the desired end : a good beginning had been made here ; why not go on and sack all Belgravia ? The suggestion had only to be made to be acted upon ; and in a few minutes more the whole vast crowd was in full cry towards Pall Mall. Here, however, an unexpected and chilling obstacle presented itself. The Duke of Wellington, who happened to have come over from Paris for a few days, and had received information of the disturbance, had shortly before despatched a battery of artillery in that direction : and as the mob swept round the corner of the Haymarket, they found themselves almost on the gaping muzzles of half a dozen big cannon, the same that had mowed down the French at Waterloo, and which seemed cordially disposed to do as much for the cockney roughs in Pall Mall. An amazing scene of confusion followed, those behind being as yet ignorant of the passionate desire of those in front to get out of the way ; and the confusion was kindled into a wild panic when the tramp of horses was heard on the left, and the black plumes and glancing breastplates of a hundred heavy dragoons were seen charging at a brisk trot upon the flank of the rioters. This charge, and the accompanying arrest of many of the ringleaders, dispersed the mob even more quickly than it had been assembled ; it plunged headlong wherever an opening presented itself, and its wicked old mother, London, swallowed it up ; as Spenser's monster swallowed her filthy offspring, at the attack of the Red Cross Knight. All mobs are cowardly : but the London mob is the most cowardly of all, because it is the least excitable, and is without convictions.

While these matters were in progress, the hackney-carriage had gone on its way unmolested, and, having reached Oxford Street, turned eastward, and rattled along swiftly towards the city. It was now nearly four o'clock, and the early London dusk had begun to settle over the dingy streets. The driver sat erect and square on the box, turning his head neither to the right nor left, but occasionally

touching the horse smartly with the whip. To look at him, one would have supposed him to be absorbed in a gloomy reverie: he scarcely seemed to notice where he was going. Presently, however, he turned down a street to the right; and in ten minutes more drew up in front of the office of Mr. Merton Fillmore, Solicitor, in the neighbourhood of Cornhill. Throwing the reins on the tired animal's back, he got leisurely down from his seat, and, with his hat-brim still pulled down over his brows, he entered the doorway and went upstairs.

He was about to lay his hand on the handle of the office door when it was opened from within, and Fillmore, with his hat and top-coat on, stepped across the threshold, but stopped short on seeing his visitor. For a moment he stood silent and motionless: then he grasped him by the arm and drew him into the office, where the clerks were locking up their desks, and across it into the inner room, closing the door behind them.

"Well, Bendibow, I'm glad you have escaped," he said. "I sent after you to the bank and to your house this forenoon, but you were at neither place. Where did you spend the night?"

"At an inn in Pimlico."

"Your house is probably in ruins by this time."

The baronet took a pistol from beneath his cloak, and showed Fillmore that it had been discharged. "I just came from there," he remarked. "I gave an account of two or three of 'em, first."

"Of course you know your life is in danger?"

"I'm dangerous myself," replied the other, with a short laugh.

"You had better lose no time in getting out of London."

"Not I! I'm satisfied. I shall give myself up."

"That may be the best thing you can do. Did you know this was coming on?"

"I suppose so. It had to come some time. I haven't known much, one way or another, lately. If Tom had been alive, I should have tried to stave it off. It's all one to me now, damn 'em! I wish I could have ruined all England."

"You have done enough, Bendibow. What was the cause of this?"

The baronet laughed again. "The cause of it? Ask the historians of the eighteenth century. If Abraham Bendibow had never succeeded, I never should have failed. It was bound to happen from the beginning. Have you got anything to drink, Fillmore?"

The lawyer shook his head. "And you had better let brandy

alone for the present," he said. "Your head has not been right, as it is, for the last four months."

"My head will last my time," said Sir Francis, carelessly. "I can bring my wits together when there's need for it. Four months, is it? Should have thought it was four days—or a century! Tom is dead . . . did you know that? You don't know what killed him, though! Well, give me something to eat, then: I'm hungry."

Fillmore opened the door, and ordered the clerk to bring some bread and meat from the neighbouring tavern. Sir Francis sat heavily down at the table, and supported his head between his hands. He was greatly changed from the courtly and fastidious baronet of last summer. There was something coarse and reckless about him. The germ of it had always been there, perhaps; but it had been kept out of sight till now. Fillmore leaned in thought against the mantel-piece with his arms folded. After a while the clerk came in, with the bread and meat. He put it down before Sir Francis, who roused himself, and began to eat ravenously. When he had finished, he leaned back in his chair, and fixed his eyes upon the solicitor.

"You're a good fellow, after all, Fillmore," he said. "I'll tell you all about it: 'twill be known soon enough, without my telling. Ever hear of Rackett's?"

"The gambling house in Jermyn Street?"

"That's it. Well, that was Bendibow Brothers—that was the real place. It brought me in hundreds per cent, where the bank brought me in tens. We should have gone down long ago if it hadn't been for Rackett's. But the devil was in it all."

"I knew you had something of the sort going on; but you never chose to explain, and I didn't care to make inquiries. But I never thought of Rackett's. 'Tis the most scandalous place in London."

"'Tis nothing now, but four walls and a bailiff. Scandalous, eh? Well, so it was! I've had there, in one night, the Prince of Wales, Brummel, Fox, Rivers, Aubrey, and Denis O'Kelly. Dick England—do you remember him? He was a great pal of mine a score of years ago. Ippoo Smith—he was another. Egad, I had 'em all! They never knew where their money went to—except those who were in the secret: never suspected Frank Bendibow of having any connection with such scandalous doings! We had Lady Kendall of Ross there once; and we made his lordship pay one hundred thousand pounds down to save my lady's reputation. Dear at the price, wasn't it?"

"Ay, you were a clever man, Bendibow. And in nothing more clever than in the way you kept your connection with this business,

concealed. Something was always suspected, but nothing was known."

"No, nothing was known. Do you know the reason? 'Twas because I knew how to choose men, and how to make them work for me. Frank Bendibow was a Napoleon, in his own way; but he's had his Waterloo! The only one who ever found me out was that jade Perdita; and she forced me to pay her ten thousand pounds for it, when I could easier have spared her as many drops of my heart's blood. I was a fool not to have taken her into partnership ten years ago, instead of marrying her to that French imbecile. She is worth more than the best dozen men I ever came across, begad!"

"She is worth too much ever to have mixed herself up in any such thievish business," said Fillmore sternly.

"Maybe she is: 'tis all over now," returned the other carelessly. "I'm glad to be at the end of it. They've been bothering me for weeks past, curse 'em! bringing me their fears and complaints, and asking me what they should do. I bade them go to the devil; I had other things to think about. If Tom had been alive . . . well, no matter! I believe that scoundrel, Catnip, that I took out of the street, damme, and had in my own office, and made a prosperous man of—I believe he was the one who betrayed us. You call me a swindler, Merton Fillmore; but if every man had been as square as I've been, I wouldn't be here now."

"You are what I would have been under the same conditions," said Fillmore. "I neither condemn nor praise any man. Had you warning of the crash yesterday?"

"At ten o'clock last night, at Vauxhall."

"At Vauxhall?"

"That surprises you, eh? 'Twas our trysting-place, where we met to concoct our nefarious schemes, as they say in the play; and the safest one we could have chosen. Well, I thought I was ready for anything; but when they told me that, I called out, and struck the fellow down, and I don't know what happened for a while after that. Here's a queer thing: I had a notion I saw that Lockhart girl—the one that married Lancaster—just before I dropped; and again, at the inn, I thought I heard her voice. At the inn I awoke this morning, and that's all I know about it. Faces and voices sometimes come before a man that way, when he's a bit beside himself. But what made me think of her, eh?" He arose as he spoke and began to button up his cloak.

"Is that all you have to tell me?" asked Fillmore.

"All? No. That's all at present. The words in which I tell

you all—you, or any one else—will be the last words that Frank Bendibow speaks. What do you care? What does anybody care? Let 'em find out, if they can. I shall be there; I am not going to run away, as Grantley did."

"You must come home and spend the night with me."

"No: my board and lodging will be at the expense of the Government from this day on. Say what you like of Rackett's, there was virtue enough in it to secure me that, at any rate. Thank you all the same, Fillmore; you're the last man I shall ever give thanks to. Well, I'm off. Good day to you."

"Where are you going?"

Bendibow named the station at which he proposed to surrender himself.

"If you are resolved to go, I will drive you there," said Fillmore.

"But you had better accept my invitation, for one night at least."

The baronet shook his head. "My liabilities are heavy enough already; I am not going to risk being the cause of your house being used as mine has been. I'm poison; but I can prevent your taking me."

And with this jest he led the way out of the office.

(*To be continued.*)

TRANSITS OF VENUS.

EIGHT years ago the astronomical world was excited over the prospect of an approaching transit of Venus, and of what might be discovered during its progress; now a transit is approaching from which at one time even more was expected, yet astronomers take the matter very calmly, and the outside world hears little either of the notes of preparation or of anticipations which astronomers have formed from the observations to be made. Yet the transit is one in which we might be expected to take at least as much interest. It will be visible under favourable conditions in countries more readily accessible—over the whole of the United States, for instance. It will be partially visible throughout the British Isles, since it begins at about two o'clock in the afternoon of December 6. Throughout France and Spain, Italy and Germany, also it will be partially visible. Yet the fact remains, that comparatively little interest is taken in the phenomenon, and astronomers—at any rate European astronomers—expect very little gain to knowledge from the observation of this particular transit.

It is not difficult to explain why the interest taken in the transit of 1882 is so much less than that which was taken eight years ago in the transit then approaching, although but five years before astronomers had been assured, by the then Astronomer-Royal, that the transit of 1882 was the one to which chief attention should be directed.

Let us, in the first place, briefly consider the history of past transits.

Venus travels round the sun almost exactly thirteen times while the earth travels round him eight times, thirteen periods of Venus differing from eight years only by about a couple of days. Hence Venus, making five more circuits than the earth does in eight years, passes necessarily five times in eight years between the earth and the sun. If she travelled in the same plane she would on each of these occasions pass across the sun's face, and be visible during the passage or transit as a black spot on his glowing disc. But she travels on a path slightly inclined to the earth's, and so generally passes

a little above or a little below the sun. Only at or near the two points where the path crosses the level of the earth's motion, or the plane of the ecliptic, as it is called, does Venus, when crossing between the earth and sun, seem to pass across the face of the latter orb. If, however, she crosses his face at any such passage, she will pass very near his face, if she does not actually transit it, at the fifth passage thereafter, occurring eight years later. Then no transit will occur till the passage between the earth and sun occurs at the opposite point where Venus crosses the plane of the earth's orbit. On this side also there will generally be two transits separated by eight years within a day or two, and so on continually: the actual intervals between transits run, then, generally thus—8 years, $12\frac{1}{2}$ years, 8 years, $10\frac{1}{2}$ years, 8 years, $12\frac{1}{2}$ years, though it can readily happen that only one transit may occur at the time where the place of passage is near those two points of Venus's path where she crosses the plane in which the earth travels.¹ These points of Venus's path lie in those directions from the sun in which the earth lies on or about June 7 and December 7, consequently no transit of Venus can ever be seen except at or near these two dates.

The first transit ever observed was one in which Mercury, Venus's fellow inferior planet, passed across the sun's face, in November 1631. It was observed by Gassendi. He looked for a transit of Venus on December 6, 1631; but failed to see it, "*d'abord,*" says Dubois, "*parce qu'il fut empêché par la pluie,*" but chiefly for the almost sufficient reason that (like the Spanish Fleet) it was not in sight—the transit occurring during the night-time for Europe.

The first transit of Venus was observed in 1639 by our countryman Jeremiah Horrocks, a young clergyman of twenty, living at Hoole. This excellent young astronomer had found that Lansberg's Tables of Venus were not accurate, and that the path of the planet being a little north of the positions assigned in the more accurate Tables by Kepler, the planet would pass over the southern part of the sun's disc. He told his friend Crabtree of this, and they both watched for and witnessed the transit, Horrocks at Hoole near Liverpool, Crabtree at his home near Manchester. On Sunday, November 24, old style (corresponding to December 4, new style), these young but skilful observers witnessed the transit, Crabtree only for a very short time, but Horrocks during the thirty-five minutes preceding sunset. It is singular to consider that here in England hundreds of observers on December 6 will be watching during the hours preceding sunset

¹ The details are all fully considered in my book on the *Transits of Venus*; they are somewhat too recondite to be discussed here.

a phenomenon precisely corresponding with that which, 243 years ago, was observed but by two lads only twenty years old. In Europe and America thousands will observe the phenomena of the transit, with the finest instruments opticians can make, and in absolute certainty that the transit will begin and end within a few seconds, at the outside, of the predicted times. Less than two centuries and a half ago none of the regular astronomers knew anything of the approaching event. They did not suppose a transit would occur; and probably had they been told about the expectations of Horrocks and his friend they would have laughed at the wasted enthusiasm of the two youths.

Horrocks's observation was a precious gift to astronomy. It remains to this day one of the fixed route marks of the planet Venus, and one of the most valued data in our knowledge of the solar system generally.

Time passed, and the value of observations of Venus in transit for determining the sun's distance was recognised by Halley, Newton's favourite disciple, and second among our Government-astronomers. He showed fully what Horrocks had more than hinted, that Venus, being between the earth and the sun, would be projected on slightly different parts of the sun's face as seen from different parts of that hemisphere of the earth turned sunwards during transit, and that the amount of her displacement on the sun's face as observed from stations at a known distance from each other would suffice, if exactly determined, to indicate her distance from the earth, and with that the dimensions of the whole of the solar system. He recognised, however, the difficulties in the way of this direct solution of the problem of determining the sun's distance. He knew that observers far apart from each other could not readily determine the apparent place of Venus as seen by each at one and the same moment, with such accuracy that subsequently the distance between the two places could be precisely learned, which is essential to the determination of the sun's distance by this direct method.

Halley therefore devised a method by which the displacement could be indirectly deduced, as he supposed, with exceeding accuracy. Let each observer note the moments when transit begins and ends, or, in other words, the time occupied by Venus in traversing her chord of transit. From these observations the lengths of the two chords can be inferred with great precision *theoretically*, and then it becomes an easy problem in geometry to infer the distance between the two paths of transit.

It is essential for this method that the whole transit should be seen,

at any rate the beginning and the end (which is not precisely the same thing, for in every transit there are stations from which both the beginning and end of a transit, but not the middle, can be observed). But it is not always easy to find suitable stations for seeing the whole transit where it will last as long as possible, and other suitable stations where it will last as short a time as possible. So Delisle devised another plan by which the observations either of the beginning or end of transit would suffice. Let one observer be placed at or near that part of the earth where the transit will begin earliest, and another at or near that part of the earth where it will begin latest (somewhat as one observer of a boat race might be placed on that part of a barge or pier where the racing boats would come into view first and another on that part where they would come into view last). It is manifest that if these two observers, at two known points of the earth, note the exact moment when each sees the transit first begin, the difference between the moments so noted by each will give a means of determining the precise effect of their separation by so many miles from each other, and so enable astronomers to infer the distance of Venus with the same degree of accuracy, theoretically, as by the other method. It is equally clear that two observers might determine the distance of Venus with the same theoretical accuracy if one observed the precise moment when Venus left the sun's face, as seen from that part of the earth where this happened earliest, while another timed the same phenomenon as seen from the part of the earth where it happened latest. In each case, knowing the distance between the two stations and observing the effect of this displacement in modifying the moment of Venus's entry on or departure from the sun's face, the angular displacement of Venus can (theoretically) be inferred, and thence her distance; precisely as the angular displacement of a distant object seen from two stations separated by a known distance indicates to the surveyor the distance of that (perhaps inaccessible) object.

The chief difficulty in Delisle's method consisted in this, that each observer, either of the beginning or end of transit, would have to know the precise instant of *absolute* time when the phenomenon he was to observe took place; and for this purpose it was essential that the exact longitude of each place of observation should be known. For till we know the longitude we cannot translate the local time of any station into Greenwich or Paris time.

The transit of 1761 was one in which great interest was taken by astronomers, chiefly because of the ideas of Halley, who was long since dead, and of Delisle, who was alive. Expeditions were sent out by

England to Cape Town and St. Helena, while English astronomers at Madras and Calcutta were enjoined to observe it. French astronomers went to Tobolsk, Rodriguez, and Pondicherry; Swedish astronomers to Lapland; Russians to Tartary and China. No less than 117 stations were occupied by 176 astronomers. Both Delisle's and Halley's methods were applied; and as at a great number of the stations fine weather fortunately prevailed, astronomers supposed they had Venus fairly in the toils, and, learning how far off she was when in transit, could deduce with confidence the dimensions of the whole solar system.

But they were doomed to disappointment. The Planet of Love had not behaved as had been expected. Theoretically, she should have appeared as a perfectly round black disc on the sun's face, and under that aspect the moments (i) when she had just fully made her entry and (ii) when she was just beginning to leave the solar disc should have been determinable within a second. For in one case a fine thread of sunlight would be seen to form between the black disc of Venus and the dark background of sky on which the sun's disc is projected, in the other a thread of sunlight, growing narrower and narrower, would break at the precise moment of contact (internal contact it is called), and in each case definite moments would be indicated, whether for measuring the duration of transit or for exactly timing the moments of earliest and latest beginning and ending. But unfortunately Venus declined at these moments of internal contact to present the fair round disc they had expected to see—she appeared pear-shaped, skittle-shaped, irregularly shaped, every kind of shape in fact except round-shaped. The fine thread of light which astronomers were to see forming in one case and breaking in the other neither formed nor broke; but instead, a longish ligament of black seemed to connect the disc of Venus with the sun's edge, lying athwart a broad irregularly shaped background of luminous surface.

The results of calculation were consequently not very trustworthy. All sorts of solar distances were determined, ranging between 77,846,110 miles and 96,162,840 miles.¹ This was manifestly a very unsatisfactory result.

¹ If the reader prefers scientific (but to most of those who are not astronomers unmeaning) verbiage, he can have it. I see, in fact, that Professor Harkness, following in other respects very closely the statements made in my *Transits of Venus*, departs from me where I add the estimated distances of the sun to the scientific statements of the solar parallax. It would degrade science, some official astronomers seem to think, to speak of the sun's distance; so readers are told that values of the solar parallax were obtained during the transit of 1761, which ranged from 8.49 seconds to 10.10 seconds—a statement which is as Goojurati Hindu even to many well-instructed persons, and certainly as Greek to the "general reader."

The following table shows the results of the survey in 1954 and 1962. They opined that the improvement in the quality of their defeat partly to the superiority of their organization and partly to their want of experience in observation. They devised new methods for observing the coming changes and they looked forward to results of great value and importance.

So far back as 1857, Sir G. Airy (then Professor Airy) called attention to what he supposed to be the fact that the transit of 1882 was the one of the pair which could alone be observed by Halley's method; and later, in 1868, he called together the chief captains and chartists of the Admiralty to get their opinion about the antarctic observations necessary for the due utilisation of the transit now imminent. With cheerful alacrity Commander Davis, Admiral Ommanney, Captain Richards (hydrographer to the Admiralty), and others, attended his call, proved incontestably that the proposed antarctic expeditions were feasible and desirable, and gave promise to all the world, by every sentence they uttered, that those expeditions should be undertaken.

Unfortunately the then Astronomer-Royal was mistaken. The earlier, not the later, transit was the one to be observed by Halley's method. How his error had arisen it would take long to say; it is all fully explained elsewhere, and though in words he never admitted that he had made any mistake at all (officials never have done such a thing), yet in action he admitted the largest part of his error, and events demonstrated the rest so unanswerably that he might as well have admitted that too.

The advantage of the earlier transit lay not only in the greater observable differences of duration (on which of course the value of Halley's method depends), but in the greater accessibility of the stations at which the method could be employed. The very best southern stations would have been those already advocated so earnestly by the Astronomer-Royal and his subordinates at the Admiralty. But they were not essential to the application of Halley's method in 1874, though they would have been in 1882. It was now suddenly discovered that the antarctic stations, which had been described as accessible and even eulogised as convenient, were altogether inaccessible and utterly uninhabitable, a general official eating of words taking place about this time which indicated very strong digestion all round. Unfortunately, other stations remained in the south which were not only well suited for Halley's method and easily accessible, but had been already indicated for Delisle's method. It was not very difficult, however, to assert that their value for observing duration had been recognised from the beginning, though nothing had been said on the subject; officials always do see everything ("it is their duty, and they do"), and it would be naturally taken for granted that they had seen everything in this case as in all others, despite the utter absence of a word referring to this particular and rather important point. As for the northern stations for observing

THE TRANSIT OF VENUS: MIDDLETOWN

... which is ... (Mr. Proctor) ... North China, and ... "that it would ... in winter ... it turned out, but ... in December for more than so ... the strange irony ... America proposed to occupy ... and Russia ... it is manifest gentleness ... England is not called upon to ... In the way of it another official astronomer ...

There still remained a region—North India—which seemed especially suitable for English observers. It had been entirely overlooked in the official discussions of the transit from 1842 to 1846: not a word said about it, nor a mention of the region shown in any one of the official charts. "What could be done under these conditions? Fortunately, a new method of observing the transit had been suggested by an official astronomer, but that is a detail, and by the use of photography. Let us then set up a photographic station in North India where the Halleys and Tensent methods can be applied at the same time, and let it be generally understood among our friends that from 1842 to 1846 we had had our eye on this North Indian region, but reserved it for the photographic method, and so said nothing about either the region or the method."

Yet again, unfortunately, the photographic method eventually adopted was not well chosen. It is readily seen that photography is theoretically a most perfect way of taking a transit. Two observers in distant stations can take photographs at the same instant of time, or at moments readily comparable afterwards, and there on the photographic image of the sun will be shown the round black disc of Venus, nearer to the centre in one than in the other, and so telling her own distance and the sun's. Or attempts may be made to take photographs showing Venus as she is entering on or leaving the sun's face. From what has been already learned as to the optical conditions under which her entry and exit are effected these last-mentioned photographs can be of very little use, but the others may be very valuable. English Government-astronomers decided to take photographs on both plans. There was room, however, for choice as to method of taking mid-transit photographs. The observer might

use an ordinary telescope, enlarging the focal image to make a photograph of adequate dimensions, or he might use a telescope of great focal length and photograph the larger image formed at its focus without any intermediate magnification. A number of considerations showed that the latter was the only method which could be trusted. European astronomers adopted the former method, because the only instruments they had yet used to photograph the sun were constructed on that plan. Their instruments for photographing Venus in transit were all modelled on the Kew photoheliograph, the object-glass of which is about $3\frac{1}{2}$ inches in diameter, with a focal length of 50 inches, so that the focal image of the sun is rather less than half an inch in diameter. This image was enlarged by a secondary magnifier to nearly four inches. The Americans adopted the other method, attaching more importance to the circumstance that it was the only method which could be trusted, than to the difficulties which had to be surmounted in applying it. They used instruments having an aperture of five inches, a focal length of $38\frac{1}{2}$ feet, giving images of the sun (at the focus) rather more than four inches in diameter. Of course a telescope 40 feet long would be awkward to wield, and still more awkward to drive by clockwork so steadily that the solar image would rest unchanged in position on the photographic plate. So, as they could not conveniently turn these telescopes to the sun, they brought the sun to the telescope, using for the purpose a mirror so moved by clockwork as to send the solar rays in an unchanging direction—to wit, horizontally—into the photographing telescope, which throughout remained fixed.

Multitudes of photographs were obtained by English and continental astronomers. The latter have not published any official report on their achievements in this direction; the former announce that "after laborious measures and calculations, it is thought best to abstain from publishing the results of the photographic measures as comparable with those deduced from telescopic view." In short, as Professor Harkness puts it, the European photographs are useless. Consequently, at the conference held in Paris to consider how the transit of 1882 should be observed, it was agreed that "photography was a failure and should not be tried again," though some rather remarkable achievements in celestial photography since the transit of 1874 might have suggested a less despondent tone.

The American photographs seemed likely at a first examination to fail equally. "When they were placed under the microscope only an indistinct blur could be seen." "Fortunately the cause of the difficulty was soon discovered. It was found that the magnifying

...a single photograph is lit
...of error. This applies only to pictures
of Venus on the sun's face, those taken while
his face or leaving it proved to be valueless.

How, then, is the transit of 1882 to be utilized?
As both Delisle's method and Halley's have proved
value, one would say they would not be applied
as subsidiary methods, which may just as well be employed
pointed to apply better methods, since it costs nothing
observations in. But as the photographic method
hands, European astronomers had no choice. "Under the
pressure of necessity," as Professor Harkness put it,
to try the contact methods once more." Luckily
about the suitability of Halley's method for the application
corrected in time, or we should undoubtedly have
the antarctic seas to occupy the stations which I
It is a matter of little moment whether the nation
expense and whatever discredit might have resulted
a blunder, through my showing the uselessness of
1882, or their utility (if the Admiralty were right
being accessible) in 1874. Suffice it, the expense
been saved. All the stations selected by British
astronomers are such as accord with what I indicated
—and this is a very great drawback
photography is not

so many can be taken that the mean probable error will be greatly reduced. As Professor Harkness well sums up the matter, "in 1761 Halley thought that by the application of this method to the transit of 1761 the sun's distance could certainly be determined within the five-hundredth part of its whole amount. Since then, three transits have come and gone, and the contact methods have failed to give half that accuracy. From the photographic method as developed by the United States Transit of Venus Commission we hope better things, and perhaps fifty years hence its results may be regarded as the most valuable of the present transit season." For my own part I have very little doubt that this will be the case. I know something of the zeal, the skill, the ingenuity, with which Americans attack problems of the sort; and from the exceptional success achieved by them on the photographic method in 1874, and the vast progress which photography has made in the interval, I feel well assured the views secured between 11. 55m. 57s. and 8h. 12m. 9s. (Greenwich time) on December 6, 1882, will be material records of the transit of Venus more valuable by far than any mere telescopic observations, however skilful or experienced the astronomers by whom they may be made. It is assuredly to be hoped that something more satisfactory than the contact observations of December 9, 1874, will on this occasion be secured. For, after the transit of December 6, 1882, none will occur for 105 years and a half.

RICHARD A. PROCTOR.

SUGAR-FIELDS VERSUS LAVA-PLAINS.

AN oft-quoted nature-proverb tells us that "The darkest hour is next the dawning," and in the history of various countries it is noteworthy how often the time of deepest commercial depression has been followed by some discovery of hidden wealth, which has produced a reaction completely changing the aspect of affairs, and infusing new life into a lethargic community.

Such was the discovery of the diamond-fields in South Africa—an event which occurred when every species of industry was at a standstill, and there appeared no possibility of restoring any sort of energy to the disheartened colonists. Suddenly, from every corner of the earth, came the great multitude, all intent on this royal road to fortune, but creating a demand for all manner of produce, and then followed a season of prosperity which even the near approach of war itself has failed to destroy.

Again, in Australia. The tide of fortune in Victoria was at the very lowest ebb when the discovery of gold brought a sudden influx of treasure-seekers, giving a new impetus to everything. The tide turned, and from that date the flood of progress has rolled onward unchecked.

A similar timely reaction seems to have set in in the little island kingdom of Hawaii, since the discovery of the miraculous effect produced on its arid, volcanic soil by the simple process of irrigation, or, I should rather say, since means have been found to make the discovery of practical use—a boon more precious than the finding of gold or gems, inasmuch as broad tracks of land, which heretofore have been considered altogether worthless, are now yielding bounteous crops in return for the simple gift of a little water; and so the isles, which were in danger of being altogether depopulated by the lamentably rapid decrease of the natives, now offer a fair field to the best class of fortune-seekers—the steady agriculturalists, who, of all men, are most likely to become permanent colonists.

That the doom of extinction does overshadow the Hawaiian race does, alas! appear only too probable, for, as you pass from isle to

isle, you everywhere hear the same sad story of a population dwindling away. Valleys which a few years ago counted four thousand inhabitants have now four hundred; those which had two thousand can barely muster two hundred.

Ever since the isles have been known, this distressing fact has been only too apparent, and each census proves that the race is swiftly and surely fading from the earth. By Captain Cook's estimate, made just a century ago, the population of the isles was reckoned at 400,000. It was long supposed that this was utterly erroneous, being based on the crowds assembled to see the strangers. It was also supposed that early travellers, who spoke of the traces of old villages and lands once cultivated but then abandoned, made no allowance for the nomadic habits of the people.

But later experience has gone to support the probability that the original computation may, after all, not have been greatly in excess. Everything goes to show that depopulation was never so rapid as in the reign of the Great Kamehameha and his successor, that is to say, the forty years after Captain Cook's visit.

The first missionaries arriving in 1820 estimated the population of the group at 140,000. But, even then, the Hawaiians themselves assured them that the population had diminished three-fourths within the previous forty years, owing to their sanguinary inter-insular wars, the increase of infanticide, and of numerous diseases.

In 1832 it was reckoned at 130,000. In 1836 it was 108,000. The census taken in 1850 gives 84,000, and in that year the number of deaths was proved to be 2,900 in excess of the births.

In 1867-68-69 the decrease was regular—a thousand per annum. In 1872 the total number of natives was 49,044, and of half-castes, 2,487. In 1878 the general census gave a return of 57,985, of which only 44,088 are of pure Hawaiian blood.

Thus it is evident that unless some almost miraculous change occurs speedily the pure race of Hawaii must become extinct within half a century. Happily the mixed race, included under the general head of half-castes, possesses considerable vitality, and is steadily increasing. The statistics of the Board of Education show that thirteen per cent. of the children attending the Government schools are half-castes. Nevertheless, this increase is a mere trifle compared with the steady decrease of the old stock; and it is clear that if the desolate lands of Hawaii are to be reclaimed, and her isles saved from depopulation, it must be by the infusion of new life from other lands.

One of the chief objects King Kalakaua had in view during his

Recent travels was that of encouraging desirable settlers to come to Hawaii, and there establish sugar plantations and other industries, hoping thus, by the importation of steady and respectable men of diverse races, in some measure to counteract the grievous but unmistakable fact that the original inhabitants of the soil are fading from the earth, like snow in sunshine. It seems the more sad that this fine people should die out, just when strangers are proving the capability of the soil to support so much larger a population than it has heretofore done.

A stranger landing at Honolulu receives his first proof of the transforming power of water. For some hours he has sailed along the barren volcanic coast of Oahu, and has been painfully impressed by the awful desolation of its uninviting red and yellow hills, only varied by eccentric masses of many-coloured lava and peaks of dark basalt, but with scarcely an indication of herbage to soften its harsh aspect. Suddenly he rounds a headland, and perceives a richly wooded valley, in which he learns that the town is concealed, and soon he discovers that a multitude of pleasant two-storied bungalows are there embowered in gardens brilliant with flowering shrubs, and shaded by the richest trees of the tropics. Beautiful passion-flowers and starry clematis, orange venusta and bougainvillias, with their rich masses of magenta foliage, climb in profusion over the verandahs, and droop from the roofs, which indeed they almost conceal. Golden alamanders and rosy oleanders, pure white trumpet flowers, scarlet and yellow hibiscus, and fragrant gardenia are among the commonest shrubs, while starry white lilies grow in rank profusion, as does a beautiful and fragrant white cactus, the night-blowing cerews, which creeps unheeded over rough stone walls and banks.

Overhead, the feathery tamarind trees form a soft veil of the lightest lace-like foliage, or large glossy-leaved india-rubber trees throw their cool, dark shadow on smooth green lawns. Norfolk Island pines and date palms, magnolia and eucalyptus grow luxuriantly, and mango and bread-fruit rank as handsome foliage trees, though their fruit is not to compare with those of the Southern Islands.

Honolulu has all the appearance of being the work of an enchanter's wand, so lovely is this oasis in the parched and thirsty land which stretches to east and west. It certainly is a most marvellous triumph of man over nature, for the very existence of the lovely trees and flowers which now grow so richly in this valley is due to incessant irrigation and to miles of india-rubber tubing, whereby movable fountains are kept ceaselessly playing in some corner of every lawn

and garden. It is hard to believe that only a few years ago this town of Honolulu consisted of a few scattered wooden houses in a bare and barren wilderness, yet so it is.

In a recent visit to Honolulu, I had the good fortune to be the guest of a delightful old American lady (mother-in-law to Princess Liliuo-kalane, King Kalakaua's eldest sister). As we sat in her verandah, looking at the lovely masses of blossom and the pleasant turf lying in cool shadow, beneath large beautiful trees, she told me how she remembered when there were only seven trees in the whole valley, and how she herself began to make the very first garden at Honolulu, by preparing a tiny plot before the window of her own bare wooden house, and there attempting to strike some geranium cuttings—an attempt much discouraged by her husband, who assured her that it was hopeless to think of making anything grow on such soil. The young wife was not easily daunted, however. She persevered, till her garden was a source of amazement to her few neighbours, who, of course, followed her good example.

Now she lives to see that region of fine cinders converted into a flourishing town, where hundreds of happy homes nestle in gardens and shrubberies, where all manner of trees and flowers grow in such rank profusion as to require ruthless pruning, and strangers wandering beneath their green shade assume them to be the spontaneous vegetation of these lavish tropics.

In point of fact, even the aggressive guava scrub, which covers large tracts of country with dense impenetrable thickets, is a foreign importation; and even the prickly pear (which now forms so conspicuous a feature in the landscape, and seems so thoroughly in keeping with the weird barren ugliness of the waste ground where it most abounds) was actually imported from America. These, however, are hardy settlers which find their own living, claiming no care, and wandering off into the wilderness.

But the boundaries of cultivation, that is to say, of the irrigated lands, are as clearly defined as is the green belt across the yellow sands of the Lybian desert, marking the overflow of the Nile. In Hawaii, as in Egypt, water acts like a magician's wand, at whose touch the arid soil becomes fertile, and rich crops appear, as if by magic.

This is strikingly apparent in the natural difference between the leeward and windward sides of each island in the group, the former being parched and arid, and the latter invariably green, thanks to the beneficent trade winds, which, beginning in March, blow steadily, with slight variations, for nine months in the year, bringing rain showers so abundantly that irrigation is scarcely required.

The town of Honolulu lies on the leeward side of Oahu; hence the necessity for regulating the water supply by sinking Artesian wells. The position of the town was a necessity arising from its being the only harbour with sufficient depth of water to afford a safe refuge for large vessels. The great mountain ridge from three to four thousand feet in height, which forms the backbone of the island, shuts out the trade-winds from this side, except at one point, just above the town, where a great cleft in the ridge acts as a funnel, through which they rush, oftentimes rain laden. Hence the greenness of the upper part of the valley, in contrast with the barren shore.

So many of the showers have spent themselves ere they get down to the town that the upper and lower ends of the valley have literally distinct climates, and the people who make their homes two or three miles above the town can have their gardens always fresh and green without any expense or trouble of irrigation. But as the majority of the showers are arrested by the great rock wall, and thrown back in rivulets to water the windward coast, it follows that the latter gets altogether the lion's share, and so the other side of the island is luxuriantly green, and yields abundant crops to the sugar planter or other cultivator.

As a matter of course, every new-comer is at once advised to ride or drive to the Pali, or precipice, at the head of the valley, as the point from which he can obtain the most complete idea of the leeward and windward halves of the isle, and their strongly defined characteristics,—windward verdure, leeward drought. From this high crag he perceives that the mountain ridge up which he has ascended forms, to windward, a grand walk of precipitous crags, and far below him, inclosed by the rock wall on one side, and the blue Pacific on the other, lies a level tract of fertile land, dotted with the homes of the settlers; the fresh, rich green telling of broad fields of sugar-cane, and smaller tracts of rice and taro, with occasional clumps of palm and bread-fruit.

Passing on to the large isle, which gives its name to the whole group, you look up from the dark forbidding lava-shore, sprinkled with weird grey cactus, and far up the hillsides you perceive belts of the loveliest vivid green, where the sugar fields fringe off into the darker greens of the forest, telling of patient human toil, reaping its reward.

On a breezy day in October we started from Hilo, the capital of this large isle of Hawaii, and a couple of hours' ride along a picturesque coast, seamed with deep ravines, brought us to the plantation of a friend, who gave us cordial welcome to his pleasant

home ; a home literally embowered in the tall sugar-cane, which waves and rustles on every side, its bright green leaves and silky tassels gleaming in the bright sunlight, or cutting clear against the cloudless blue of sky and sea. Each daughter of the house has a patch of cane, which is her "pin-money," and to which accordingly she devotes special care, and great was the exultation of these happy maidens because their canes had far overtopped those grown by their father ! One of the finest was sacrificed in our honour, which struck us as being a peculiarly Hawaiian form of slaying the fatted calf. I cannot say, however, that chewing sugar-cane is an incentive to conversation, or that it has any special charm, beyond that of affording a pretext for pleasant idleness, while lounging in a cool verandah, and looking out on the waving green around.

We were duly initiated into all the mysteries of the process by which, *in one day*, the growing cane is transformed into pure white sugar, including carrying, crushing, boiling, refining, and all other details of manufacture, till the perfect article is packed in kegs and carried to a storehouse on the shore, ready for embarkation when the steamer comes round:

The crushed cane is left dry as tinder, and is carried by a tiny railway to a storehouse, where it is stacked, as fuel for the great furnace which provides steam for the machinery.

In carrying the cane, an immense deal of labour is saved by the use of flumes, which are slight aqueducts, constructed of timber. These are in use on all the sugar plantations where water can possibly be made available, in order to float the cane from the upper grounds, right into the crushing-mills. Occasionally the workmen save themselves a walk, and take passage in this strange water-carriage, in company with the logs for extra fuel, cut in the forests beyond.

Leaving the pleasant village of Hilo, we sailed for about thirty miles along a coast which is literally seamed with deep beautiful gulches, each forming the channel of a wild mountain torrent. There had been two days of heavy rain, and the rivers were all in flood. The majority make a final plunge over precipitous cliffs, forming fine waterfalls, so that the view obtained from the sea is unique and very lovely. From one point I counted twenty waterfalls simultaneously in sight, and none of them could have been more than a quarter of a mile from its neighbour.

This beauty did not extend very far. Soon afterwards we stopped at Kawaihai, a dreary-looking settlement on a most barren, desolate coast of harsh uncompromising lava—no foliage, save a few long-suffering and very thirsty-looking cocoa-palms—no streams—only

a scorching shore, and bare red volcanic hills, looking like well-baked bricks, all the redder because of the burning sun which blazed so pitilessly on land and sea.

From this point we obtained what I suppose I must call a fine view of the three great volcanoes, so grouped as to form a triplet of domes, though in truth the use of the word *domes* will surely mislead you, if you allow yourself to think of an architectural dome, or such decided forms as the mighty granite domes of California. These are literally much more like the jelly-fish you see lying on the sea-shore;—for although their respective heights are, Mauna Kea, 13,950 feet; Mauna Loa, 13,760; Mauna Hualalei, 8,500 feet; yet they spring from so vast a base, and ascend at slopes so gradual, as effectually to deceive the eye. Certainly Mauna Loa, which appears in the centre of the group, is distant forty miles, and Hualalei about thirty miles, but the atmosphere is so bright and clear that you cannot believe in their distance, any more than in their height. I confess I found it difficult to admit the grandeur of the subject, for a more unlovable scene than that presented by these three dull curves I never beheld.

The island of Hawaii rises from the waves like a vast fortress, ninety miles in length, entirely built up by the Fire Genii, whose materials have been lava of every description. The centre of the isle is a most desolate high plateau, from which rise the three great volcanoes,—the ever active Mauna Loa, and the extinct or dormant Mauna Kea and Hualalei. The general aspect of this land is, to my mind, most dreary; yet, as we have seen, wherever water can be obtained, there this desert becomes fertile, and so great sugar-estates have sprung up; there are also large cattle ranches and sheep-runs, and thousands of wild cattle roam at large through the forest belt which clothes the lower slopes of the mountains.

Of these, vast herds are literally wild—the descendants of those brought here by Vancouver, and turned out to increase and multiply under state protection. They are now so fierce that the natives stand in considerable awe of them and give them a wide berth in the forest, where they are said to do considerable damage to the timber.

Besides these purely wild herds there are immense numbers which have nominal owners, who at some period or other contrive to drive them into a corral, and brand them with their own mark. Some of these ranchmen have runs upwards of twenty miles in length, and are nominal owners of from ten to fifteen thousand head of cattle.

It is no child's play to collect a drove of these creatures, who when hunted, are half maddened by fear. So it is no wonder that an

average of fifty horses a year are gored to death in this dangerous but most exciting work—sport, I may call it, for no form of sport can be wilder or more exciting than that of galloping for hours in pursuit of an infuriated herd of raging dangerous beasts, the finest of which are singled out and captured by means of skilfully thrown lassoes. Then, indeed, comes the tug of war, might against might, the captive bullock dashing madly to and fro, rushing at the horses, who, well trained to their parts, evade his charge with almost miraculous skill, till after a prolonged struggle the poor savage is exhausted, and his captors succeed in drawing him up to some point of vantage where they can give him the *coup de grâce*.

Sportsmen are looking forward to a day when the deer forests of Hawaii shall become a reality, nor is there any reason why they should not do so. Deer have been turned out on the vast slopes of Mauna Loa, and there seems every reason to expect that they will increase and multiply just as the cattle have done.

Of these, multitudes are shot, merely for the sake of their hides, the value of their flesh being infinitesimal, owing to the difficulty of carrying or preserving it in hot weather. It does seem so pitiful to think of the unfed multitudes to whom this good beef would be such a boon.

Less exciting property are the great sheep-runs on the slopes of Mauna Kea on high breezy pastures. Of course they do not compare in figures with the huge flocks of "The Colonies." Still, a man who owns from twenty to thirty thousand sheep has a fair claim to rank high in the pastoral community. The wool export varies considerably for better or worse, from year to year. The latest on which I have any report is that of 1878, when this little group exported 522,757 pounds.

At present, however, all golden visions centre in sugar. In the way of business little else is talked of. The relative value of different kinds of cane, the density of their sap, the ravages of rats, or of insects, the rise and fall of the American market, these are the topics of chief interest in the isles.

Leaving the coast of Hawaii, we steamed for several hours across the channel dividing it from the Isle of Maui, which, seen from the sea, is a pile of red, scorched-looking, bare volcanic hills, seamed with what have once been rivers of molten lava, and are now beds of black, rugged, cruel-looking rock, lying in horrid masses for miles along the shore. These are old lava flows. Between them lie stretches of the blackest lava sand, with here and there a bank of white coral sand, and the only representatives of vegetation are the mounafu

paradise with its blue-green drooping leaves, or that of all tropical plants, the weird grey prickly pear several small ports, consisting merely of a few poor houses and a group of native huts scattered over the heaps. We knew they were only the points for ship of pleasanter and more fertile spots, but they themselves howlishly dreary.

The Isle of Maui is in the form of a double-bott apparently been built by the action of two distinct overflowings have met, and formed a wide, low isthmus between the two mountain masses, which form East and West Maui. The great new sugar-plain which the government are now transforming from a wilderness of choking alluvial soil.

West Maui consists of the heap of barren hills; groups of small craters mingle with the black lava streams—the very type of ghastly desolation; yet deep gorges, each hiding within its ghastly walls a patch of rich surroundings of rich foliage.

East Maui consists of one vast dome-shaped mountain a thousand feet high, but rising at the same very gentle slope as the volcanoes of Hawaii. As seen from the isthmus the mountain presents the smooth curve of that great summit of the extinct crater which lies within it—a crater twenty miles in circumference—some authorities estimate it at two thousand feet in depth, and having within it sixteen secondary craters, some of which form mountains a thousand feet in height. The view to be obtained from the crater is altogether unique, and more resembles that of the moon's disc, as seen through a powerful telescope, than any terrestrial scene. Possibly the old Hawaiians had such thoughts, for they called it Haleakala, the House of the Gods.

But for the present our interests are confined to the present. The steamer lay to, off Maalea Bay, and we went to the dismal shore. An hour's drive along the base of the scorched hills of West Maui (the Mauna Eka) led to something of the isthmus, which lay outstretched a dreary expanse of arid, disintegrated lava. Although a wild waste of unproductive dust had been partial to barren wilderness was bordered by rich fields of sugar cane.

Truly lovely were those green canes, with their leaves so rosy and silvery, resembling the blossom of a

the broad leaves waving gently in the breezy sunlight. The fields are hedged with the prickly pear, which attains a height of about twenty feet, with stems upwards of a foot in diameter, and becomes a very handsome though grotesque shrub. As we advanced, we saw indications of the beauty which the inhabitants of Maui ascribe to their beloved isle. We caught glimpses of green valleys hidden in the deep chasms which have rent the fiery hills. But we were scarcely prepared for the beauty of Waikapu, which, deriving its name from the river, is the headquarters of a hospitable sugar-planter, who welcomed us to a most comfortable New England home, in a lovely tropical garden, which, by contrast with its surroundings, appeared to us simply a Paradise. Beautiful imported trees overshadowed its smooth green lawn, and a group of pretty children were playing joyously among thickets of bright blossom. The house proved as pleasant as its garden—a pretty, well-ordered home. Just below it are grouped all the buildings connected with the estate—the overseers' and workmen's houses and offices.

A little farther lies the pretty village of Wailuku, with its large Hawaiian (Congregational) church, and a tiny English Episcopal chapel. It also derives its name from a very beautiful river. Here several descendants of the original mission families have made for themselves pleasant homes, embowered in shady gardens; and all with one accord believe that the wide world does not contain another spot so beautiful as the Iao Valley, with its strange rock-pinnacles and wealth of rich foliage. I unfortunately failed to penetrate to the Upper Valley, as several days of heavy rain brought down the Wailuku river in heavy spate, and each tributary was swollen to a turbid flood, the mad rushing waters obliterating every indication of the accustomed fords.

At Wailuku we hired a capital express team (namely, a sort of double dog-cart), and started on a drive of ten or twelve miles across the isthmus. The weather was greatly in our favour, for here the slightest breath of wind raises such clouds of blinding sand as usually makes this part of the expedition a matter of dread. On the present occasion all was dead calm; not the faintest breeze stirred, and, though the heat was grilling, we knew that it was far better than if there had been even a breath of air. Our route lay along the sea beach, where great green waves rolled in, in long lazy swell, and broke in booming thunder on the yellow sands, the white surf flashing as far as the eye could see along the level shore. The distant sea and hills were of a heavenly blue, while the near sandhills were of every shade of orange and rust colour. I never saw such rich colouring in sand.

There is in that zone the remains of over-sitting volcanic dust, which has by its changes obliterated the faint landmarks of those preceding it. We followed several cut-tracks, and encountered in somewhat sterile fashion among the forest and ferns, which are scattered among or a poor scrubby vegetation. It was a great inspiration when first a distinguished American, Mr. Claus Spreckels, of San Francisco, determined to find means whereby to irrigate this wide plain of volcanic dust which only needed the magic touch of water to be transformed into the richest and most fertile soil. So he formed a great sugar-growing company and dug great ditches, and turned on his irrigation works so systematically, that already the streams are becoming the rice-fields.

Many and great were the difficulties to be surmounted in those days, when streams passing down various gullies on the flank of Hualala, a natural obstacle engineering to divert these from their natural several courses and send them through the forest and across the volcanic wastes which span the mountain side. This was accomplished by the means of great frames of wooden aqueducts, and in some places the water is led across these through very large pipes, which in the banks of the stream would have been the pipes of the stream, and then across the stream a bridge of the heaviest pipes and by the other side.

The water passages have also contrived that the irregularity of the streams was made to be smoothed and that means of strengthening the pipes and making them to stand the tremendous force of sudden floods; but so well has the work been accomplished that a water-wheel thirty miles in length has been constructed, and by an almost imperceptible grade it flows at a speed of twelve feet in a mile, the previous falling streams are now turned to bring drink to the thirsty soil and water to the plough. I am told that these irrigation works have involved an outlay of \$1,000,000, but that the result has already proved the wisdom of the expenditure. Not only did the plantations on the mountain side at once profit largely, but in an incredibly short space of time a great expanse of three thousand acres of rich sugar-cane sprang up in the midst of the wilderness of red dust—a great oasis in the desert and an earnest of its speedy extension. Now two large mills have been constructed, to crush the cane on the spot, and a railway has been laid from Wailuku, along which the sugar's life will produce. This is the first railway of the Hawaiian Kingdom.

Having crossed the streams following a somewhat intricate course to avoid the new ditches, where busy squads of men were hard at

work, we reached the base of East Maui, and commenced the ascent of Haleakala. We were able to drive as far as Heiku, a large sugar plantation. Here we found a store where we were able to lay in a stock of provisions and to hire horses for the ascent of the great mountain.

Our luck in weather unfortunately changed; dark lowering clouds told of the coming storm, and soon the rain fell in torrents. The path was so heavy and so slippery that the horses could make no way; the great plain below us was utterly blotted out; nothing was to be seen but one broad sheet of grey mist and rain. The poor horses, heavily weighted, slithered and slid on a track which had turned to greasy mud, and down which the rain rushed in rivulets, bewildering to behold. Bedraggled and dripping, we were thankful when, soon after sunset, we reached an empty house, in which we obtained permission to take up our quarters for the night. We happily found a store of dried wood, and the Hawaiian guides quickly kindled fires, at which we all commenced the slow process of drying our saturated garments, a task which occupied us till midnight.

All this was a bad preparation for the early start which is one of the essentials in ascending this mountain, where, soon after sunset, mists are apt to arise, which blot out the whole landscape, and fill the great crater. The pitiless rain never stopped—all night it poured incessantly, so we made no effort to be early in the morning. Indeed, I felt as if all energy had been washed out of me, so we were rather taken by surprise when, at 6 A.M., it suddenly cleared. Of course, before we could breakfast and get the horses ready, a precious hour had flown.

Fortunately, the ascent is so gradual that there is not the slightest difficulty in riding the whole way. We passed a belt of very pretty timber, and then rode over immense fields of wild strawberries. Cape gooseberries, and a juicy whortleberry called Ohelo, also abound, and, even where the vegetation is scantiest, several very pretty kinds of fern nestle among the crumbling lava rocks.

Three hours' steady ascent brought us to a cave, which is really a large lava bubble, in which we had originally intended to camp, and which would, I think, certainly be the better plan, so as to be as near the summit as possible. Not far from this bubble, we found a good spring of fresh cold water; two similar springs exist in the actual bed of the crater.

Two months previously, I had drunk similar sparkling water from the holy spring on the summit of Fujiyama, four thousand feet higher

than this House of the Sun. I am told that there are clear fountains of pure ice-cold water in several of the extinct craters in Auvergne.¹ I wonder how it is that cold water springs so often exist on dormant volcanoes?

One mile more brought us to the summit, 10,217 feet above the sea, and, dismounting, we picked our way among masses of volcanic rock and cinders. A few steps brought us to the edge of the gigantic pit crater, a tremendous abyss—but, alas! we were too late. According to their almost invariable habit, clouds had formed in the crater soon after sunrise, and they had already floated almost up to the level on which we stood. For all we could see of the bed of the crater, we might as well have been standing on the edge of a cyclopean pie-dish two thousand feet in depth, but full of the lightest, whitest flummery. It certainly was very tantalising. Nothing was visible save the great rock-wall, on the brink of which we stood, and which extends in a vast sweeping circle, variously stated to be from twenty to thirty miles in circumference, only broken in two places, known as the Koolau and the Kaupo Gaps, on the east and north sides, through which, in ages of which no tradition exists, the lava floods must have poured down to the sea in appalling rivers of molten rock, one of which must have been fully three miles in width. Imagine how awful must have been the sight of this fiery stream rushing down from a height of ten thousand feet! The vast cauldron which once contained this lake of liquid lava is of a long oval form, upwards of seven miles in length by three in breadth, having an area of about sixteen miles.

Far beyond the near circle of rock, we could see outspread, in clear delicate colouring, a faint vision of cultivated lands along the sea-board, and, still farther, the distant isle of Hawaii, where Mauna Loa, the ever active volcano, rose pale and blue from the deeper blue of the ocean.

It was a strange and beautiful scene, though not that which we were so anxious to behold. However, it was a fine exercise of patience, as all day long we waited on that strange precipice, watching for whatever might be revealed. At first matters grew worse instead of better, for the dense clouds of white mist came rolling up from the depths, till they veiled even the near crags, and we ourselves were enfolded in its cold damp wreaths. Hour after hour we sat watching that fleecy white sea, curling and writhing, now opening a break which gave us a glimpse of the far-distant mountains of Hawaii,

¹ For full particulars of Hawaii—its Volcanoes and its Mission Story, see *Fire Fountains*. C. F. Gordon Cumming. 2 vols. Blackwood & Sons.

and then of the coast ten thousand feet below us. Anon, as if a curtain were drawn aside, we had a momentary glimpse of a group of cones, or rather secondary craters, rising from the bed of the great crater, which lay outspread at a depth of nearly half a mile below us; one at least of these cones attaining a height of seven hundred and fifty feet (two hundred feet higher than Salisbury Crags at Edinburgh).

There are sixteen of these minor craters, which, anywhere else, would pass as average hills, but which here are mere hillocks. Most of them are of very red lava—a baked-looking, fiery red, strangely in contrast with the blue-grey lava which forms the bed of the crater. Here and there, a faint tinge of green suggests vegetation, and we knew that the tiny dots, which we could just discern to be some sort of shrub, were really quite large trees, and that in the neighbourhood of the two water springs there is fair camping-ground in the actual bed of the crater.

At certain points on the inner slopes of the great crater there is found a beautiful plant, known as the silver-sword, which has the appearance of being made of finely wrought frosted silver, and bears a blossom like a purple sunflower. The plants are so beautiful that the foreign residents treasure them as household decorations. Why they should be called swords is not apparent, inasmuch as in general form they rather resemble very large well-grown cabbages built up of layers of delicately refined silver leaves. They are very partial in their growth, and are only found at a particular level, a short distance below the summit.

For six long hours we sat on the brink of the crater, watching as the shifting clouds revealed ever-changing glimpses of the weird red cones, which appeared by twos and threes, exciting our interest and curiosity to the utmost. It was not till late in the afternoon that a kindly breeze sprang up, stirred the cloud masses and wafted them upward, leaving the crater almost clear, so that we obtained a satisfactory view of this unique scene.

Having lingered till the very last moment, we had to hurry on our downward road, the track being very rough, and unsafe after dark. Happily we made such "good time" that we reached the strawberry fields before sunset, and were able to cross them at a hard canter, and so reached our quarters before dark.

We woke to behold a glorious cloudless morning. Not the faintest veil of mist rested on Haleakala, which was then a true "House of the Sun." If the clouds of the previous day had tried our patience, the loveliness of this day was almost more trying. We

could scarcely resist retracing our steps, but friends were awaiting us in the lower world, so we regretfully went on our downward way. Beautiful in the clear morning light seemed the isthmus of yellow sand, washed on either side by the blue waters of the Pacific, and beyond it, in faint delicate colouring, rose the hills of West Maui, with every cleft of the rugged mountains clearly defined.

Looking down from that high ground we gained a good general idea of one side of the great mountain, which at its base has a circumference of upwards of five hundred miles—a space which allows for considerable variety of soil and cultivation. Those broad mountain flanks are divided into eight districts, two of which are regions of rock and forest, where only wild cattle roam; one is good pasture-land, suitable for grazing, while the remaining five have rich fertile soil, well suited for the growth of sugar, tobacco, and other crops.

The district of Makawao, for which we are bound, covers 100,000 acres. The climate is considered perfect; the soil only needs systematic irrigation in order to produce all manner of crops, so it is considered to be a planter's paradise.

At the plantation where we halted we found several gentlemen—Americans and Germans—engaged in learning the mysteries of sugar in all its branches, and, as the crushing-mills were in full work, it was a favourable opportunity for seeing the whole business. Consequently our host kindly took us all over the place, most patiently explaining every detail of the process, whereby the canes which wave their green leaves and rosy silken tassels in the morning sun, can, ere its setting, be transformed into fine crystallised sugar.¹

The canes are cut just above the roots, which are left in the earth, and from which spring healthy young shoots. These are called Ratoon cane, and form the crop of the second year. The canes, having been stripped of their leaves, are brought to the crushing-mills as soon as possible, as they deteriorate if left to dry. For this purpose flumes, *i.e.* wooden aqueducts, such as I have described, are erected so as to connect the higher sugar-fields with the mill, and in these the canes are floated down, for perhaps several miles—an immense saving of labour.

Arrived at their destination, they are thrown into a traversing platform, which ensnares them between three large cylinders, which form the crushing-mill. These, being worked by an engine, revolve ceaselessly, crushing the cane, which passes out on the other side, reduced to a flat strip of dry fibre, while the saccharine juice, which is of a pale green colour, is received in a tank below, whence it is

transferred to the clarifiers to be boiled and slaked with lime, in order to correct its natural acidity. Afterwards it passes through many stages of preparation.

First it is run into great metal pans called the clearing pans, several of which stand in a row, and the fluid is ladled from one to the other, each hotter than the last, as it comes nearer the furnace. When it enters the first pan, it is a dirty turbid fluid, with a very offensive smell. In each stage of its boiling in these pans a horrid-looking scum is carefully skimmed off. So it becomes gradually clearer as it reaches the pan nearest to the furnace, where it is made to boil furiously till all the remaining scum has come to the surface and been skimmed.

The syrup is next transferred to the concentrating pans, in which it is boiled and skimmed till it becomes smooth and clear, but is of a warm brown colour, still giving off a little reddish scum.

After this it is drawn off into the vacuum-pans, in which it is boiled in "vacuo." By this time it resembles coarse treacle. It is then passed into the mixing troughs.

At this stage the person in charge of the boiling occasionally spoons out a few drops to test the condition of the brew. Minute crystals have now formed which give the syrup a thickened appearance. It is next run into heated tanks, in order that it may granulate. This is the first crystallisation, and gives the finest sugar.

A large quantity of molasses, however, remains, and this is now boiled for a second time in the vacuum pans and forms sugar of the second quality. But there still remains a residuum of syrup, which is once more returned to the vacuum pan, and undergoes a third boiling, again yielding some sugar, but a smaller quantity and of inferior quality. The second boiling takes longer than the first, and the third takes longest of all, and gives the smallest return.

The syrup is now transferred from the granulating tanks to the centrifugals, which are perforated cylinders, or rather drums, made of copper-gauze. They are fixed in a strong iron tank, and, when set in motion, rotate with such velocity that it is impossible to detect any movement whatever. It is calculated that they make upwards of a thousand revolutions in a minute, with the speedy result that the dark treacle is transformed into dry crystallised sugar, which remains in the drum all ready for household use, while the coarser molasses escape and are drained off. This is really a beautiful process, and seems to savour of magic.

The manufacture of rum being illegal in the kingdom of Hawaii, there is no further use for the refuse syrup.

After spending an hour or two in this atmosphere of sugar, and admiring the fine cattle employed about the works, and the beautiful green sugar-fields of the plantation, we looked with keener interest on the desolate expanse of sand and dust, so long deemed only a useless nuisance, but which already showed patches of bright emerald green on the new sugar-lands,—where so soon the stillness would be broken by the noise of machinery, the whistling and groaning of steam and crushing-mills, the buzzing of the centrifugals, and all the busy life which follows in the train of money-making.

I believe that scientific analysis has proved that the extreme fertility of the pulverised lava, which forms the soil of these isles, is due to the presence of a triple proportion of phosphates and nitrogen to that ordinarily found. To the same cause is ascribed its durability, and even when, after yielding many successive crops, the generous soil shows symptoms of exhaustion, it only needs to be sprinkled with the potash contained in the ashes of burnt weeds and refuse cane to become fertile as ever. The remedy lies ready for use, as the cane passes from the crushing-mill in the form of dried fibre, and becomes the natural fuel of the plantations or the manure of the fields.

Another advantage of the volcanic soil is its good natural drainage. Add to this a genial climate, tolerably warm, neither too dry nor too moist, and varying little, though the seasons may nominally pass from summer to winter, and you have the best possible conditions for sugar-growing.

The cane appears to have been indigenous in this group, Captain Cook having found it growing wild in several places, large and of good quality. But all the best varieties have now been introduced from other sugar-growing countries, some with golden cane, others ruddy, some pale green, and some of a rich brown colour. Different canes are found to suit different soils and different altitudes, so that each planter learns by experience to which variety he should give the preference.

Already upwards of seventy sugar plantations are scattered throughout the group, their returns being reckoned at from three to five tons of sugar to the acre. This sells in San Francisco at an average of £25 per ton, which, after deducting all commercial expenses, is reckoned at £22, the outlay for cultivation further reducing the planter's net profit to about £18. But in the following season he may look for a volunteer crop of ratoon cane, which springs up of its own free will from the roots of last year's growth, and meanwhile he has planted fresh acres with the tops cut from the

first canes, and so, year by year, he may enlarge his borders and find his revenue increasing fifty-fold.

Under such favourable circumstances, we may naturally look for the rapid extension of sugar-growing in Hawaii. Looking back to the year 1860, I find the export of sugar quoted at 1,144,271 lbs. ; in 1877 it had increased to 25,575,965 lbs. ; while in 1879 it rose to 49,020,972 lbs., almost all of which found its way to San Francisco.

Since then the increase has gone on steadily, almost all the raw sugar required for the Pacific Coast States being imported from Hawaii and refined in San Francisco, which in the year 1880 absorbed 64,000,000 lbs., and in 1881 upwards of 88,000,000 lbs. of Island sugar.

Of course the chief secret of this rapid advance lies in the fact of America having agreed to the long-talked-of Reciprocity Treaty, whereby "Muscovado, brown, and all other unrefined sugar, commonly known as 'Sandwich Island Sugar,' syrup of sugar-cane, melado, and molasses" are now admitted free of duty from the Hawaiian Islands to the United States ; consequently the estates, which hitherto have scarcely been able to pay their way, are in a fair way to become immensely remunerative. The treaty, which was considered experimental, expires in 1884 ; but, as most of the plantations on the Isles are owned by Americans, there is little fear of its not being renewed ; and, although San Francisco already has two sugar refineries in full work, they have been found unequal to the fast-increasing requirements of the trade. A third gigantic factory has accordingly been erected, which is expected annually to turn out 225,000,000 lbs. of refined sugar.

Lest, however, the planters should be too much elated by their prosperity, certain humble foes, in the form of rats and worms, contrive to give serious trouble by their ravages. With the former I have great sympathy, as they have an evident appreciation of good things ; but as to the wretched borer-worms, they are true messengers of Satan, who, from innate love of mischief, riddle the cane internally, so that, while apparently sound, it is really a honeycomb, from which all the sweet juices have escaped.

There seems too good reason to fear that the rats will prove an ever-increasing pest, involving serious loss, both in the destruction of cane and of the expenditure required in order to keep their ravages within bounds. Possibly the sugar-planters of Hawaii may obtain a useful lesson from the experience of their brethren in Jamaica, where (as indeed on all the West Indian isles) the devastation wrought by the rat legions has been a very serious drawback

to the prosperity of almost every estate, and many tracts of fertile land have been actually abandoned, owing to the impossibility of checking their inroads.

In addition to the ordinary brown and black rats (those irrepressible colonists which take free passage to every new country where European vessels call), Jamaica has been invaded, and is now infested, by a most formidable enemy, a rat ten inches in length, or, including his tail, twenty inches.¹

So great has been the damage done by these combined foes, that it has been estimated at £100,000 per annum in Jamaica alone, notwithstanding that a considerable saving is there effected by the use of the rat-eaten canes for the rum distilleries—an application of sugar which in Hawaii would be illegal.

For many years the afflicted planters vainly tried every known method of battling with their sharp and sweet-toothed adversaries. Cats were introduced, but were worsted in the fray. Ferrets were next tried, but these succumbed to the attacks of ravenous Chigoe fleas. Then huge bullfrogs were introduced from South America, and did their best to consume the young rats, but could by no means equal the supply. So each estate found it necessary to employ professional rat-catchers with troops of dogs, curious basket-work traps, and various poisons, chiefly phosphoric. These kept up an incessant rat-slaughter, but all their efforts to exterminate the foe proved ineffectual.

At last it happily occurred to some one to introduce the common Indian mungoose,² the natural foe of rats and snakes. A more powerful ally could not be desired. In 1872 four males and five females were imported direct from India, and turned out on the plantation of Mr. Espent. So amazing has been their fecundity that already there is not a district on the island of Jamaica on which a large number of their descendants are not busily engaged in the destruction of their hereditary foes. Thousands of young ones were captured and turned loose on distant plantations, and now all the planters speak in terms of unmeasured praise of these zealous auxiliaries.

They reckon their annual expenditure on rat-catching at less than one-tenth of what it has been in past years, while some, still more fortunate, declare that since the arrival of the mungoose the rats have absolutely disappeared from their fields. All that the mungoose asks is to be allowed to work in peace and unobserved, so that the most sequestered estates are those which have received the greatest

¹ *Mus Saccharivorus.*

² *Herpestes Ichneumon.*

benefit from his labours. He takes up his quarters in ruined walls and deserted buildings, and thence goes forth to war ; and so effectual has been his work that several districts which had literally been abandoned to the rats are now once again being planted as sugar-fields.

He requires clean farming on the part of his human allies, for he requires a clear field where he can see all around him and dart on his prey, so that a slovenly farmer who tolerates a thick undergrowth of weeds will not find favour from these energetic little friends.

At present, their good deeds are so apparent that no one cares to think seriously of the occasional disappearance of eggs and chickens, though it is evident that as rats grow fewer, and mungoosees more numerous, this evil may become serious.

Anyhow, it is well proven that the mungoose is a valuable auxiliary against the rats—and as such, the planters of Hawaii will do well to recollect him as a ready helper, should serious need for his services arise.

At present, a more obvious drawback to the planting interest is the difficulty of obtaining labour. Various efforts have been made to supply the deficiency. The Board of Immigration, finding that the influx of Portuguese, South Sea Islanders, and even Chinese has hitherto failed to meet the demand, now talk of importing labour from India, which, however, would involve considerable expense.

The Portuguese, who were expected to come to the relief of the planters, preferred work of other kinds, for which they found openings. Even the Chinese, who were looked to as a sure solution of the difficulty, are found, very naturally, to prefer engaging themselves to work with their own countrymen, who, with their usual clear-headedness, no sooner learnt that rice was to be admitted to America free of duty, than they bought up or leased every bit of desolate swamp land, chiefly on the Isles of Oahu and Kauai, and have transformed them into fields of rich green paddy. They buy or lease every corner they can get hold of which is fit for agriculture, and now grow such crops of fruit and vegetables as Hawaii had hitherto never dreamt of.

The owners of the soil make a good thing by charging exorbitant rents for land which they have hitherto considered of little or no value. But the industry and perseverance of the Chinaman find their reward. Steam rice-mills have been set up, and the rice now exported to America compares with the finest in the markets there.

Ever on the alert to improve good opportunities, the clannish

Chinamen have naturally flocked to Hawaii, and whereas in 1876 there were not above fifteen hundred Chinese in the group, in 1880 they number upwards of twelve thousand; and natives and Europeans alike complain that, by their diligence and frugality, they are gradually absorbing all classes of work.

It remains to be proved, what may be the result to Hawaii of the recent jealous policy of exclusion, which has induced the legislature of the United States to yield to the anti-Chinese howl; actually prohibiting all ship-masters, under severe penalties, from landing any Chinamen at any port in the States, for a term of ten years. It would seem only natural that the Mongolian stream thus diverted from California should flow to Hawaii, whose king (during his recent visit to China) received special ovations from the Celestial rulers, in acknowledgment of the even-handed justice which he has ever extended to all their fellow-countrymen, and his cordial encouragement of their industry.

For a while, there was good reason to fear that their example would lead the people of Hawaii to become opium-smokers, but happily the legislative authorities have checked this terrible danger with a strong hand, by totally prohibiting the importation of the pernicious drug—a noble example of judiciously sacrificed revenue. For whereas, in 1875, when Chinamen were yet few in the land, the opium imported was valued at 22,516 dollars,—now, when they are daily increasing in number, the place of opium, in the table of imports, is happily marked by a blank.

As a matter of course, such a law is certain to be occasionally evaded; but how strictly it is enforced may be gathered from the following instance. A Chinaman named Ah Leona was recently arrested for smoking opium. He was caught in the act, when he offered twenty-six dollars, as a bribe to his captors. Finding them invulnerable, he entreated the magistrate to allow him to procure a substitute, whom he could bribe, to bear the just penalty. On being refused, he pleaded that he was a doctor, and required the opium for the use of his patients. This defence also failed, and Mr. Ah Leona was sentenced to two months' imprisonment and a fine of fifty dollars. Thus Hawaii protects herself from the spread of this sore evil.

With regard to the question of sugar-labour and its difficulties, the great Spreckels plantation is almost entirely worked by Chinese, but many lesser plantations have had cane ruined in the field, for want of hands to care for it, while others have, from the same cause, suffered serious delay in their building and other necessary work.

Consequently, the amount of sugar actually produced has, for the present, fallen short of the expectations formed. This, however, is considered to be merely a temporary check. By recent accounts, an arrival of three thousand Chinese and a considerable number of Norwegians was shortly expected; and much attention was being devoted to the introduction of labour-saving machinery, such as steam ploughs and traction engines, and other means for reducing the number of hands and of cattle formerly required. The latter reduction would have the further advantage of redeeming the lands now set apart for pasture.

There are considerable points of difference in the natural advantages of the various isles, from a planter's point of view. For instance, take Hilo and all the eastern parts of the great isle Hawaii, with their frequent rains, and consequent green luxuriance—and compare them with the dry, barren dust-fields of the thirsty Maui. On the latter, it is necessary for the planter to water each ridge of cane at least once a week,—a slow and tedious business. On the former, artificial irrigation is altogether unnecessary, so that fewer “hands” are required. But then, the cane cannot ripen so quickly in the warm, moist atmosphere, and may take twenty months to make as much progress as a rival field on a dry island will make in twelve, when artificially irrigated. On the other hand, the cane which ripens slowly at a considerable elevation acquires a greater density than that planted on lower levels, and may possibly yield double the amount of sugar. Thus the balance is preserved, and each isle pleads its own merits, offering varied inducements to small capitalists from far countries, to bring their money, their energy, and their industry to aid in changing these neglected shores into fruitful fields.

C. F. GORDON CUMMING.

DREAMS AND THEIR FOLK-LORE.

A PART from their importance as a psychological study, few subjects have throughout all ages possessed a wider interest than dreams. In the history of the intellectual development of most nations they have always proved an intricate problem, and given rise to numerous theories, in some of which we shall have occasion to refer in the present paper. Among the rude and uncivilized tribes, dreams have in a measure influenced the formation of those animistic conceptions which primitive philosophy has designated as an elucidation of certain phenomena connected with life and death, now classed under the term *heliology*. It is not surprising, indeed, that dreams should have suggested from a very remote period the most fanciful speculations, baffling the highest intellectual efforts of each successive stage of civilization. Even to the advanced student of psychology they are surrounded by mystery: their relation to our daily life having been aptly and gracefully summed up by the late Mr. Emerson in the *North American Review* (March 1847): "The witchcraft of sleep divides with truth the empire of our lives. This soft enchantment runs our children lying locked in each other's arms, and carries them amble by wide spans of land and sea, wide intervals of time. 'Tis superfluous to think of the dreams of unimaged; the astonishment remains that we should dream, that we should resign so quietly this deifying reason, and become the theatre of delusions, show where the space persons, cities, animals should dance before us in merry and mad confusion, a delicate creative outdoing the print and flower of actual nature, comic comedy alternating with horrid spectacles. Or we seem hoisted for hours and days in peregrination over seas and lands, in earnest dialogues, strenuous actions, soliloquies and absurdities, cheated by spectral jokes, and waking suddenly with ghostly laughter, to be rebuked by the cold, lone sleep: midnight, and to raze with confusion in memory among glabbering nonsense to find the motive of this his contemptible *causation*."

Reflecting, therefore, how closely dreams are allied to the true phenomena of life, and how many moot questions t

suggest even to the student of psychology, it is only natural that they should have sadly puzzled the rude savage, his childlike knowledge being completely at a loss to explain, or account for, so strange a characteristic of life. Furthermore, as Mr. Spencer observes, the savage is met by another difficulty, because "his rude language fails to state the difference between seeing and dreaming that he saw, doing and dreaming that he did. From this inadequacy of his language it not only results that he cannot truly represent this difference to others, but also that he cannot truly represent it to himself. Hence, in the absence of an alternative interpretation, his belief, and that of those to whom he tells his adventures, is that his *other self* has been away, and came back when he woke. And this belief, which we discover among various existing savage tribes, we equally find in the traditions of the early civilised races."¹ We have here, then, one of the most popular dream theories prevalent among the lower races: the exit of the person's soul at night-time and its departure to other scenes. Thus, when the sleeper awakens from his dream, "he believes that he really has somehow been away, or that other people have come to him."² According, therefore, to this notion, he lives a kind of twofold life; for, whereas in the daytime it is his body which is the living active principle, in the night-time this is completely passive—motionless, unconscious, and for the time being not unlike the state of death—but now it is his other self, his immaterial life which awakens, and, leaving the body in its insensible condition, goes forth on its midnight errands. With wondrous rapidity, and in a very short time, the man's soul is believed to make varied excursions, sometimes travelling to the most distant lands and back, besides entering into a thousand pursuits, and conversing, also, with friends whose society he may not have enjoyed for many years. The literature of foreign tribes supplies abundant examples of this primitive belief, which is one of the most widespread theories of savage psychology. It has also given rise to a superstitious dread lest the dreamer's soul should never return to the body; and so when a man dies in his sleep the savage remarks that "the soul has been detained and unable to return." On this account it is considered dangerous to touch a sleeping man, lest this act should interfere with the absent soul. We may trace a distinct revival of this dream theory in our own country in connection with St. John's Eve, when fasting watchers sit at midnight in the church porch that they may see the apparitions of those doomed to die during the ensuing year

¹ *Recent Discussions in Science, etc.*, 1871, 36, "The Origin of Animal Worship."

² Tylor's *Anthropology*, 1881, 343.

come with the clergyman and knock at the church door, in the order and succession in which they will die. The same superstition also prevails on St. Mark's Eve, and is thus alluded to by Montgomery in his "Vigil of St. Mark" :—

'Tis now, replied the village belle,
St. Mark's mysterious eve ;
And all that old traditions tell
I tremblingly believe.

How, when the midnight signal tolls,
Along the churchyard green
A mournful train of sentenced souls
In winding sheets are seen !

The ghosts of all whom Death shall doom
Within the coming year,
In pale procession walk the gloom,
Amid the silence drear.

As Mr. Tylor remarks,¹ " these apparitions are spirits who come forth from their bodies ; for the minister has been noticed to be much troubled in his sleep while his phantom was thus engaged ; and when one of a party of watchers fell into a sound sleep, and could not be roused, the other saw his apparition knock at the church door."

Again, this theory of the temporary exit of the soul from the body in the hours of sleep has been regarded by uncivilised tribes as an evidence of a future life ; for oftentimes the dreamer converses with his dead brethren, and joins with them in some sport, such as hunting. Hence there arises, adds Mr. Fiske,² " the belief in an ever-present world of souls, or ghosts—a belief which the entire experience of uncivilised man goes to strengthen and expand." The equatorial savage believes that the manes of his forefathers influence his life and fortunes entirely to his advantage, and, by a dying friend or relative, will often send messages to him. The visions also which come to him in his dreams, and the sounds which he fancies himself to hear, are those of the unseen. As he is always brooding upon his dreams, and relating them to his friends, he finds it at last no easy matter for him to draw a line between the dream and the reality.³ These stories, which are so freely circulated amongst savage tribes, and find such ready credence, are interesting in so far as they find their counterparts in the classic literature of olden times. Thus,

¹ *Primitive Culture*, i. 440.

² *Myths and Mythmakers*, 220.

³ See Mr. Winwood Reade's *Savage Africa*, 1863.

if the North American Indian of to-day relates, with solemn gravity, how in his dreams he has even reached the land of the dead, and been favoured with a view of his former comrades, and actually seen them at work in their various occupations, so we may compare the familiar story of Orpheus going down to Hades to bring back to earth his beloved Eurydice. And in later times we have Dante, in his "Divina Commedia," describing, as a visitor to the land of the dead, the conceptions familiar to his age of paradise, purgatory, and hell.

The practice of fasting for the purpose of inducing dreams may be traced back to primitive times, when it was customary by this means to produce morbid physical conditions—any such interference with the healthy action of the body and mind being best calculated to cause ecstatic visions. Such mental derangements, however, it must be remembered, were not known to be dependent on the state of the body, but were regarded as symptoms of Divine visitation, abstinence from food having been considered by the early philosophers as a religious rite best suited to insure superhuman ends. However, too, irrational dreams might be, yet a symbolical meaning was generally attached to them, the truth of which was invariably accepted and adopted as a principle to regulate the future life. Even the Greek oracle priests, says Mr. Tylor, "recognised fasting as a means of bringing on prophetic dreams and visions. The Pythia of Delphi herself fasted for inspiration; and Galen remarks that fasting dreams are the clearer." The same belief extensively prevails amongst the uncultured races of the present day, fastings being often kept up with remarkable endurance for many days together. Thus we are told how certain of the North American Indian tribes enjoin rigorous fasting among children from a very early age, during which time especial attention is paid to their dreams.¹ At the age of fourteen or fifteen the young Indian goes forth into the woods in search of his "medicine"—the fetish-representative of his protecting genius—for in this he believes resides his all-powerful charm and talisman, without which he would fail in every undertaking throughout his life.² Accordingly, for some days he lies on a litter of leaves and twigs—as long as his physical powers hold out—abstaining from every kind of food, for it is supposed that in proportion to the duration of his fast will be the potency of his "medicine." At length, however, worn out, he falls asleep, and the bird, beast, or reptile of

¹ Tylor's *Primitive Culture*, ii. 411.

² Davenport Adams, *Curiosities of Superstition*, 265; Loskiel, *North American Indians*, Pt. I. 76.

If ceremonies due they did aright ;
As supperless to bed they must retire,
And couch supine their beauties, lily-white ;
Nor look behind, nor sideways, but require
Of heaven, with upward eyes, for all that they desire.

This superstitious observance, however, is still kept up in the North of England, where, as an additional rite, young women are required to make the "dumb cake," so called from the rigid silence which attends its manufacture. Its ingredients (flour, salt, water, &c.), says Mr. Henderson,¹ must be supplied in equal proportions by the friends, who must also take equal shares in the baking and turning of the cake, and in drawing it out of the oven. The mystic viand must next be divided into two equal portions, and each girl, taking her share, is to carry it upstairs, walking backwards all the time, and finally to eat it and jump into bed. A damsel who duly fulfils all these conditions, and has also kept her thoughts all the day fixed on her ideal of a husband, may confidently expect to see her future partner in her dreams. Some young girls, again, after a rigid day's fasting, will boil eggs, and, having extracted the yoke, will fill the cavity with salt—eating one apiece, shell and all—and then walk backwards, uttering this invocation before retiring to rest : —

Fair St. Agnes, play thy part,
And send to me my own sweetheart,
Not in his best or worst array,
But in the clothes of every day,
That to-morrow I may him ken
From among all other men.

Among some of the other kinds of divination practised for the purpose of causing prophetic dreams, we are told how, in Lancashire, young girls not unfrequently put their Bible under their pillows, with a crooked sixpence placed on the 16th and 17th verses of the first chapter of Ruth, in order that they may both dream of and see their future husbands. Triple leaves, too, plucked at hazard from the common ash, are worn in the breast, and are believed to possess special virtues.² There is, too, the well-known one of passing a piece of bride-cake through a wedding ring, and placing it beneath the pillow to dream upon. Another popular charm consists in plucking yarrow from a young man's grave, repeating these words :—

Yarrow, sweet yarrow, the first that I have found,
In the name of Jesus Christ I pluck it from the ground ;
As Joseph loved sweet Mary and took her for his dear,
So in a dream this night I hope my true love will appear.

¹ *Folk-lore of the Northern Counties*, 1879, 90, 91.

² Harland and Wilkinson, *Lancashire Folk-lore*, 1867, 20.

A peculiar importance has generally been attached to Friday night dreams. Sir Thomas Overbury, in his charming character of a milk-maid, says: "Lastly, her dreams are so chaste that she dare tell them, only a Friday's dream is all her superstition; that she conceals for fear of her anger." In Lancashire there is a rhyme to the following effect:—

Friday night's dream,
On the Saturday told,
Is sure to come true,
Be it never so old.

According to a Northumberland superstition, the smooth leaves of the holly must be plucked late on a Friday, by persons careful to preserve an unbroken silence till the following morning. The leaves must be collected and tied with nine knots into a three-cornered handkerchief, and placed beneath the pillow, when dreams worthy of all reliance will attend this rite. Certain seasons also in the year, such as Christmas, Midsummer Eve, St. Mark's Eve, All Hallow E'en, have been from time immemorial regarded as specially propitious for dream divinations, many of which are still observed by those anxious to know their lot in the married state.

The omens in the next place of good or ill luck drawn from dreams are innumerable, and have been extensively credited in all ages. One of the earliest and most striking instances of symbolically interpreting dreams is that recorded by the sacred narrative in the case of Joseph (Genesis xxxvii., xl., xli.), where we have the details and interpretations of the sheaves, and the sun and moon and eleven stars, of the vine and the basket of meats, of the lean and fat kine, and the thin and full corn-ears. In the East, indeed, Oneiromancy, or the mystical explanation of dreams, has from the most remote period been looked upon as a science, certain men having been supposed to be specially gifted in this way. The Greeks and the Romans attached equal importance to dreams, regarding them as mediums of revelation; and hence we find numerous cases on record in which striking political events were in a measure influenced through their occurrence. At the same time, however, there have always been opponents strong-minded enough to ridicule this belief in dreams, as a divine agency, ordained to warn and guide mankind in the affairs of this world. Thus Cornelius Agrippa, in his treatise entitled "*De Vanitate Scientiarum*," alluding to the interpretation of dreams, says: "To this delusion not a few great philosophers have given not a little credit, especially Democritus, Aristotle, and his follower, Themistius. But Marcus Cicero, in his

'Book of Divination,' hath given sufficient reasons against the vanity and folly of those that give credit to dreams." Coming down to later times, we find Bishop Hall, in his "Characters of Virtues and Vices," thus speaking of the superstitious man: "But, if his troubled fancy shall second his thoughts with the dream of a fair garden, or green rushes, or the salutation of a dead friend, he takes leave of the world and says he cannot live. There is no dream of his without an interpretation, without a prediction; and if the event answer not his exposition, he expounds it according to the event." Referring to the foreign races of the present day, it may be noted that the Brahmans of India have hundreds of volumes on the art of interpreting dreams, and the Mahommedans of India have scores of them. Among uncivilised tribes, too, we find the same practice extensively prevailing of drawing omens from dreams, several interesting instances of which Mr. Tylor has collected.¹ Thus we are told how a whole Australian tribe has been known to decamp because one of them dreamt of a certain kind of owl, which dream the wise man declared to forebode an attack from a certain other tribe. It is interesting to find the old familiar theory that dreams go by contraries, which still so generally exists in this country, forming an article of Zulu belief. "If they dream of a sick man that he is dead," says Mr. Tylor, "and see the earth poured into the grave, and hear the general lamentation, and see all his things destroyed, then they say, 'Because we have dreamt of his death he will not die.' But if they dream of a wedding dance, it is a sign of a funeral. So the Maoris hold that a kinsman dreamt of as dying will recover, but to see him well is a sign of death." Without multiplying, however, further examples of this superstitious belief as found among savage tribes, we may briefly refer to it as having from time immemorial prevailed in our own country. Thus Henry, in his "History of Great Britain" (iii. 575), writes concerning it: "We find Peter of Blois, who was one of the most learned men of the age in which he flourished, writing an account of his dreams to his friend the Bishop of Bath, and telling him how anxious he had been about the interpretation of them; and that he had employed for that purpose divination by the Psalter. The English, it seems probable, had still more superstitious curiosity, and paid greater attention to dreams and omens than the Normans; for, when William Rufus was dissuaded from going abroad on the morning of that day on which he was killed, because the Abbot of Gloucester had dreamed something which portended danger, he is said to have made this reply: "Do

¹ *Primitive Culture*, 121.

you imagine that I am an Englishman, to be frightened by a dream or the sneezing of an old woman?"¹ Indeed, the literature of bygone years abounds with curious items of information on this popular subject, and it would require a voluminous work to enumerate only the chief and most remarkable facts in connection with it. A north-country chap-book, entitled the "Royal Dream Book," which attracted some years ago a good deal of attention, and is still a favourite manual among the lower orders, is indeed nothing less than a dictionary of dreams, stating as it does, in the most minute manner, the indications of good and bad luck which are supposed to be engendered in dreams during the hours of slumber. Many, too, of the old almanacs devoted several pages to enlightening their readers on dream omens, a practice which is not yet entirely obsolete; but by far the most curious theories were those contained in the old penny chap-books which were generally hawked about at the village fair. Again, Shakespeare, who has illustrated so many of the superstitions of his time, speaks of the significance attached to dreams. In the "Merchant of Venice" (act ii. sc. 5) it may be remembered how he represents Shylock as saying:—

Jessica, my girl,
Look to my house; I am right loath to go;
There is some ill a-brewing towards my rest,
For I did dream of money-bags to-night.

Cassius says of Julius Cæsar (act ii. sc. 1):—

But it is doubtful yet
Whether Cæsar will come forth to-day or no;
For he is superstitious grown of late,
Quite from the main opinion he held once
Of fantasy, of dreams and ceremonies.

And in the same play mention is made of the ill luck likely to befall those who dream of banquets.

Once more we may quote Romeo's words (act v. sc. 1):—

If I may trust the flattering eye of sleep
My dreams presage some joyful news at hand;
My bosom's lord sits lightly in his throne;
And all this day an unaccustomed spirit
Lifts me above the ground with cheerful thoughts.
I dreamt my lady came and found me dead.
Strange dream, that gives a dead man leave to think.

Brand quotes from Lilly's "Sapho and Phao" (1584; act iv. sc. 3): "And can there be no truth in dreams? Yea, dreams have their truth. Dreames are but dotings which come either by things we

¹ Quoted in Brand's *Pop. Antiq.*, 1849, III. 134-40.

see in the day, or meates that we eate, and so the common sense preferring it to be imaginative." "I dreamed," says Ismena, "mine eye-tooth was loose, and that I thrust it out with my tongue." "It foretellethe," says Mileta, "the losse of a friend, and I ever thought thee so full of prattle that thou wouldest thrust out the best friend with thy tatling." Amongst other similar allusions, we may mention Gaule, who in his "Mag-Astromancers Posed and Puzzel'd" (181), after enumerating various omens, speaks of the "snorting in sleep," "the dreaming of gold, silver, eggs, gardens, weddings, dead men, &c." Melton, in his "Astrologaster," tells us that "If a man be drowsie, it is a sign of ill-lucke; if a man dream of eggs or fire, he shall hear of anger; that to dream of the devil is good lucke; that to dreame of gold is good lucke; but of silver, ill." Reginald Scott has given many curious items of folk-lore respecting dreams in his "Discovery of Witchcraft." Thus, for instance, he informs us of "the art and order to be used in digging for money, revealed by dreams." "There must be made," he says, "upon a hazel wand three crosses, and certain words must be said over it, and hereunto must be added certain characters and barbarous names. And whilst the treasure is a digging, there must be read the Psalms, *De profundis*, &c., and then a certain prayer; and if the time of digging be neglected, the devil will carry all the treasure away." The belief in dream omens still extensively prevails in this country, being by no means limited to the lower orders. Thus morning dreams are more to be relied on than those of any other time; and should it happen that a dream is repeated substantially three times, the events are certain to come to pass. Of the numerous rhymes illustrative of dream omens, we are told that it is lucky to dream of bees:—

Happy the man who dreaming sees
The little humble busy bees
Fly humming round their hive.

Dreaming of misfortune is said to betoken prosperity, and, according to a popular rhyme:—

Content and happy may they be
Who dream of cold adversity;
To married man and married wife
It promises a happy life.

It is unnecessary, however, to add further instances, as there are few villages where penny dream books may not be purchased.

Again, another interesting subject of inquiry is the influence of dreams in the formation of myths. It is but natural that the recol-

lections of those grotesque visions which haunt the repose of the slumbering hours of the savage should afford ample story material for his imagination as yet untouched by modern culture. As Mr. Farrer observes,¹ "In all fairy tales and all mythology, a remarkable conformity to the deranged ideas of sleep occurs, and the stories of the lower races; as for instance those of Schoolcraft's 'Algic Researches,' read far more like the recollections of bad dreams than like the worn ideas of a once pure religion, or of a poetical interpretation of nature. The most beautiful of the Indian legends, that of the Origin of Indian Corn, was in native tradition actually referred to a dream, and to a dream purposely resorted to, to gain a clearer insight into the mysteries of nature." Impressions printed on the mind, in whatever way they may have been acquired, are sure to be transmitted to other minds; additions and modifications being made according to the individual dictates of the imaginative faculty. When, too, as we have already pointed out, it is remembered how in his childlike character the rude savage was unable to confront the phenomena of dreams—the incidents of his sleeping moments possessing as much objective reality as the events of his waking hours—we can partly understand how he would be in the habit of narrating the utterances of his dream as if they were purely subjective phenomena. Thus, when relating the experiences of his sleep, the savage tells with minute accuracy "how he saw certain dogs, dead warriors, or demons last night, the implication being that the things seen were objects external to himself."² Considering also how dreams generally represent, although it may be in a *distorted form*, the incidents of everyday life, this, Mr. Farrer suggests, offers "some explanation of that general similarity which is so conspicuous an element in the comparative mythology or the fairy lore of the world."

Lastly, according to another theory, which in years gone by was much credited in Scotland, the gift of second-sight is conveyed to some persons by means of dreams. It is asserted that occasionally dreams are used as a vehicle of intercourse between the visible and unseen world, whereby an intimation is made not only of what is actually taking place at a long distance off, but of coming events. Indeed, this belief is still a deep-rooted one; and, it must be acknowledged, many curious instances are on record illustrative of its truth; evidence which, as Sir Walter Scott affirms, neither Bacon, Boyle, nor Johnson could resist. Mr. Henderson³ has collected together

¹ *Primitive Manners and Customs*, 1879, 261-2.

² Fiske, *Myths and Myth-makers*, 219.

³ *Folk-lore of the Northern Countries*, 1879, 339-48.

some striking cases, two of which we quote. A lady of Truro dreamt, the night before a boating party, that the boat was upset and she herself drowned. She therefore determined not to join it and sent an excuse. The party returned safely, however, and the lady, after telling a friend what had passed, and describing where she had dreamt the body would be found, ceased to think of the matter. A month or two later the lady had occasion to cross the Truro river, at King Harry's Passage; the boat was upset, she was drowned, and they sought for the body in vain. Then the friend to whom she had told her dream came forward, and pointed to the spot marked out in the dream as the body's resting-place, and there it was found. The second instance, which occurred in 1848, and was narrated in the papers of the day, is as follows: Mr. Smith, gardener to Sir Clifford Constable, was supposed to have fallen into the Tees, his hat and stick having been found near the waterside, and the river was dragged for some time, but without success. A person named Awde, from Little Newsham, then dreamt that Smith was lying under the ledge of a certain rock about three hundred yards below Whorlton Bridge, and that his right arm was broken. The dream so affected this man that he got up early and set out at once to search the river, and on the first trial he made with the boat-hook he drew up the body of the drowned man, and found the right arm actually broken. There are numerous cases of this kind, many of which it has been found difficult to explain; but the question is one which has already engaged the attention of the psychological student. In years gone by, it was supposed that fairies, in their nocturnal rambles, visited sleeping mortals, and suggested to them the subjects of their dreams, an allusion to which Shakespeare makes in "Romeo and Juliet" (act i. sc. 4), where Romeo says: "I dreamed a dream to-night," whereupon Mercutio replies:—

O then I see Queen Mab hath been with you !
She is the fairies' midwife, and she comes
In shape no bigger than an agate-stone
On the forefinger of an alderman.

One way, as we have shown in a previous paper,¹ whereby they terrified sleeping mortals was by nightmare. In "Cymbeline," too (act. ii. sc. 2), Imogen, on retiring to rest, says:—

Sleep hath seized me wholly.
To your protection I commend me, gods.
From fairies and the tempters of the night
Guard me, beseech ye.

T. F. THISELTON DYER.

¹ *The Gentleman's Magazine*, January 1882.

THE STORY OF L. E.

ONE of the most interesting and most romantic of letters seems always to bring before me some curious bit of her story, practical associations of a special and interesting nature. These are but few now alive who know it: these are persons of great age, who are intimately acquainted with her, and who know well the details of the last sad episode, and a general history, which fell into the "Annals" category, attractive to the young and more so, which was published, in the year 1814, the neighbourhood of her birth, born at Chelsea in 1794. This pleasing young creature, invited the same interest herself at Heronston about the year 1814, the director of an influential literary personage, the director of the day, *The Literary Gazette*. "My father of L. E. L.; a narrow lane only dividing our residence, the first recollection of the future poetess is that of a plump girl enough to be almost mistaken for a woman, bowing a hood the walks, with the hoop-stick in one hand and a book in the reading as she ran, and, as well as she could, managing both and instruction at the same time. The exercise was prescribed insisted upon: the book was her own irrepresible choice." presently led to the usual request, modestly made, in such would Mr. Jerdan just cast his eyes over some lines of poetry did so, and encouraged the young girl. He became to her a guide and friend and educator, and in a naïve passage the grave seems to more than hint that he was regarded as an "ideal":—

It is the very essence of the being I have so faintly portrayed, not thing, in their actual state, but to imagine, create, exaggerate, and form into idealities; and then to view them in the light in which vivid fancy alone made them appear. Thus it befel with my tuition of L. E. L. Her emotions and aspirations were intense, usurping in fact almost every other faculty of the brain; and the assistance I could give her in the ardent pursuit proved an influence not readily to be conceived under other circumstances or of

less imaginative nature. The result was a grateful and devoted attachment ; all phases of which demonstrate and illumine the origin of her productions. Critics and biographers may guess, and speculate, and expatiate for ever ; but without this master-key they will make nothing of their reveries. With it, all is intelligible and obvious, and I have only to call on the admirers of her delicious compositions to remember this one fact, to settle the question of their reality or romance—that they are the effusions of passionate inspiration, lighted from such unlikely sources. It was her spirit which clothed them according to her own unreal dreams.

Gradually her poems began to excite attention. She soon became a useful assistant on the Gazette, doing, besides her verses, reviews and essays ; carrying that hod, as it were, which secured, at least, a satisfactory daily wage. She became known and sought. She received good prices for her books, though these were conceived in a spirit of romance that might be called "second hand," the scenes she describes being laid in Italy, where she had never been. Her friend furnishes the following prosaic but satisfactory table of receipts—"Romance and reality" it might be called :—

For the Improvisatrice she received	£300
For the Troubadour	600
For the Golden Violet	200
For the Venetian Bracelet	150
For the Easter Offering	30
For the Drawing-Room Scrap Book	105
For Romance and Reality	300
For Francesca Carrara	300
For Heath's Book of Beauty	300
And certainly from other Annuals, Magazines, and } Periodicals, not less in ten or twelve years than . }	200
In all	£2,485

The fair L. E. L. was editress of one of those engravers' books which were then in high fashion, bound in blue or crimson silk, and printed on wove hot-pressed paper, and for which elegant amateurs were glad to furnish verses and sketches ; the names of persons of fashion being mingled with those of the professionals. But it took a good many years before she attained to this elevation. Lady Blessington was the successful conductor of another of these publications, and readers of the life of Dr. Madden will gather a good idea of the almost abject lengths to which the literary aspirant would go to secure a place in her venture.

One of the pleasantest views we have of her is a little "junketting"—evidently a great effort—she took to Paris, in 1834, by the somewhat homely conveyance of one of the General Steam Navigation Company's packets from St. Katherine's Wharf. She wrote to her first friend Jerdan regularly, who always seems flattered

by her attentions ; but an attractive young woman, who was at the same time amusingly anxious about the "siller," insensibly begins to flatter the editor, whom she likes, and on whom at the same time so much depends. She writes from Boulogne :

"I began a letter to you yesterday, but on taking it up this morning, I find it is, even to you, scarcely legible, so will begin it over again. I have also another reason ; I wrote on English paper, which is heavier, and I have to pay the inland postage, and to-day my time *ne vaut pas mes sous*. You cannot think how I missed you. I really thought the morning never would pass. It did pass, however, and then I wished it back again. The wind blew directly in our teeth. It was impossible to read for three reasons—the sun, the wind, and the noise.

And when I endeavoured to get into a pleasant train of thought, it made me melancholy to think I was leaving my native country. I was fairly dying with a desire of talking. I am quite cured of my wish to die for some time to come, as I really think that now I quite understand what the sensation is. I was not sick—scarcely at all ; but so faint ! As to what Boulogne is like from the sea, I cannot tell. I scarcely recollect anything about my landing. Misfortune first recalled my scattered faculties. At the Custom House you are searched."

Again she writes to him :

"We could not get places to go to Paris till Sunday. Miss Turin wanted to have taken the whole *coupé*, which would have been very comfortable ; but a gentleman has already one place, and it is scarcely worth while waiting till Tuesday. Moreover, the *conducteur* says that '*c'est un monsieur si poli.*' How he has ascertained that fact I do not know. It has a very odd effect hearing a strange language spoken under our windows ; and now I have told you everything that I can think of, which does not amount to much. However, I have taken two things for granted, first, that you would expect my first letter, and also that you would be glad to hear how I was. I fear I shall never make a traveller. I am already beginning to count the days for my return. Kind regards to all inquiring friends, and hoping that you are missing me very much."

In another letter :

"The first thing that I did was to write to you from Boulogne, and the first thing that I do is to write to you from Paris ; but truly the pleasure of seeing my hand-writing must be sufficient. Never was there a worse traveller. I arrived in Paris more dead than alive, and till this evening have not held up my head. The beginning of our journey was delightful ; the road is like one avenue, and it was so pretty, having the children, every hill we ascended, throwing roses into the carriage, asking for *sous*. I was scarcely sensible when we arrived at Paris, and was just lifted out of the *diligence*. Since then the extent of my travels has been from the bed to the sofa. We have very pleasant apartments, looking on the Boulevards—such a gay scene. It seems so odd to see the people walking about in caps, looking so neat, and I must add so clean. Mercy on the French carriages and horses ; they make such a clatter ; drive far more with their tongues than the reins. We have delicious dinners, if I could but eat, which at present is an impossibility. I am still a horrid figure with my sea and sunburning.

"Be sure wafer, and thin paper. I shall be very glad to see England again.

"I wish I could find any channel of writing by the ambassador's bag, for

the postage which I have to pay is two francs, and, what is much worse, the post-office is at the other end of the town, and even when I have a messenger, whom I must pay, the chances are that he will not pay it. I long to see the 'Gazette;' and now must end abruptly or lose my opportunity, Pray write to me. I wish I were at home without the journey. I shall write the moment I have anything to tell, and must watch my means of going to the post-office."

"Love and fear are the greatest principles of human existence. If you owed my letter of yesterday to the first of these, you owe that of to-day to the last. What, in the name of all that is dreadful in the way of postage, could induce you to put the 'Gazette' in your letter? welcome as it was, it has cost me dear, nearly six shillings. I was so glad to see your hand-writing that the shock was lost in the pleasure; but truly, when I come to reflect and put it down in my pocket-book, I am 'in a state.' The 'Gazette' alone would have only cost twopence, and the letter deux francs; but altogether it is ruinous. Please when you next write, let it be on the thinnest paper, and put a wafer. Still, I was delighted to hear from you, and a most amusing letter it was. The 'Gazette' is a real treat. It is such an excellent one as to make me quite jealous.

"My only approach to an adventure has been as follows:—I was advised, as the best remedy against the excessive fatigue under which I was suffering, to take a bath, which I did early one morning. I found it quite delicious, and was reading 'La Dernière Journée,' when I fell asleep, and was in consequence nearly drowned. I suppose the noise of the book falling aroused me, and I shall never forget the really dreadful feeling of suffocation, the ringing in my ears like a great bell with which I awakened."

She then adroitly turns to "business":

"I think some very interesting papers might be written on the modern French authors. We know nothing of them. If I do write them I must buy some. At Galignani's they only allow two works at a time, and I can scarcely get any that I desire. I am thinking of subscribing to a French library. One feels the want of a gentleman here very much.

"I was so glad of your letter.

"I have been hitherto too ill to do anything; but I have quite arranged my plan to write in my own room four or five hours every morning, so I hope to get a great deal done. Adieu, *au revoir*."

"35 Rue-le-Grand, Lundi,

"which being done into English means Monday.

"I hope you will not think that I interd writing you to death; but I cannot let this opportunity pass. Miss Montgomery leaves Paris to-morrow, and so write I must. I am quite surprised that I should have so little to tell you; but really I have nothing, as ill-luck would have it. I went to call on Madame Tastu, from whom I received a charming note, and while I was out Monsieur Sainte-Beuve and Monsieur Odillon Barrot called; however, the latter wrote to me offering his services as cicerone, &c., and I expect him this morning. M. Heine called yesterday; a most pleasant person. I am afraid he did not think me a *personne bien spirituelle*, for you know it takes a long time with me to get over the shame of speaking to a stranger. By way of conversation he said, 'Mademoiselle donc a beaucoup couru les boutiques?' 'Mais non.' 'A-t-elle été au Jardin des Plantes?' 'Mais non.' 'Avez-vous été à l'opéra, aux théâtres?' 'Mais non.' 'Peut-être Mademoiselle aime la promenade?' 'Mais non.' 'A-t-elle donc apporté beaucoup de livres, ou peut-être elle écrit?' 'Mais non.'

them at home, but I doubt being able to accomplish it; for though I have bought nothing but what was indispensable, such as gloves, shoes, paper, &c., I have little more left than will bring me home. The dust here is something not to be told; before you have walked a hundred yards your feet are of a whitish brown. A great deal of my time has hung heavily on my hands, I have been so languid and so feverish; still, I feel that I have quite a new stock of ideas, and much material for future use. One ridiculous misfortune is continually befalling me; I am always falling down, the *parquet*, *i.e.* the floor, is so slippery, and I am never very steady on my feet. I really thought I had broken my arm yesterday. I am very anxious about getting home. I like our new lodgings so much. They are, according to Sir William Curtis's orthography, three Cs, namely, clean, cool, and quiet."

After all her many hints and allusions, she now came to a formal proposal for business:

"This is quite a business letter, so I beg you will read it with all due attention. I have read now a considerable portion of French new works, and find a great many which, translated with *judgment*, would, I think, sell. I underline judgment, for not a little would be required. What I propose, is to make an annual, consisting entirely of French translations—prose and verse. I could get it ready in about a month. To be called—what? We must think of a good title. 'The Laurel, or Leaves from French Literature;' 'The Exchange, or Selection of French Authors,' with a little vignette on the title-page, of the Bourse or 'The Stranger,' &c. &c.

"I do not propose new prints; anyone who knew how to set about it might form here a collection of very pretty prints of all sorts of popular subjects. You must please see if any publisher will undertake this, and if they will, please write as soon as possible. I feel convinced I could make a very amusing book; shortening, softening down, omitting, and altering in my translations, according to my own discretion. I could have my part of the volume ready in about six weeks."

These extracts from her letters will be found singularly sprightly and interesting, especially the naïve reference to "business," as her money was going rapidly.

This interesting woman, as may be imagined, was much sought for her own personal gifts—"a great warmth of feeling—a peculiar charm of manner and address—an affectionate, loving nature—a simplicity of mind, wholly free from affectation—a guileless character, child-like in many of its traits—devoid of all suspicion of evil intentions and designs, and yet not free from impulsive tendencies and some degree of wilfulness, being her characteristics."

This confidence—and she went much about by herself—made her likely to be the victim of would-be sympathisers of an unsuitable kind; and when it is found that the well-known Grantley Berkeley, Dr. Maginn, and others of the kind were interesting themselves in her and championing her cause, it shows she was not over-prudent. She had the tendency of all heroines—trust in everybody she met.

With this she had a painful, acute sensitiveness, which made her feel and exaggerate slights and injuries to an extravagant degree; and this had the unfortunate result of raising up hosts of enemies, who harassed the unprotected creature for years with anonymous attacks and rumours. "Her peace of mind," says her friend Dr. Madden, "was more than disturbed by those diabolical efforts to annoy her—it was destroyed by them; and when labouring under recent inflictions of outrages of this sort—all her energies, bodily and mental, were disordered and impaired by them: the first paroxysms of suffering were usually followed by syncopes, spasms, tremors, and convulsive attacks, approaching to epileptic seizures. And when the violence of this nervous agitation would cease, then would come intervals of the most profound dejection of spirits."

It may be conceived that there were many suitors for so interesting a prize; but these enemies, by a dreadful system of persecution, seemed always to interpose, and succeeded in breaking off the engagements. One of the most eminent sculptors of her day was eager to make her his wife, but their cruel interference broke off the match.

With this gaiety of nature before us—which seems almost child-like—we turn to a letter written by Lady Blessington, after her death, which outlines L. E. L.'s tragic history, and serves as a curious commentary on her life thus far:

"Poor dear L. E. L. lost her father, who was a captain in the army, while she was yet a child. He had married the widow of an army agent, a woman not of refined habits, and totally unsuited to him. On his death, his brother, the late Dean of Exeter, interested himself for his nephew and niece, the sole children left by Captain Landon; and deeming it necessary to remove them from their mother, placed the girl (poor L. E. L.) at school; and the boy at another. At an unusually early age she manifested the genius for which she afterwards became so deservedly popular. On leaving school her uncle placed her under the protection of her grandmother, whose exigence rendered the life of her gifted grandchild anything but a happy one. Her first poetical effusions were published many years ago, and the whole of the sum they produced was appropriated to her grandmother.

"Soon after, L. E. L. became acquainted with Mr. Jerdan, who, charmed with her talents, encouraged their exertion by inserting her poems in a Literary Journal, with all the encomiums they merited. This notice drew the attention of publishers on her, and alas! drew also the calumny and hatred of the envious, which ceased not to persecute her through her troubled life; but absolutely drove her from her native land. There was no slander too vile, and no assertion too wicked, to heap on the fame of this injured creature. Mr. Jerdan was married, and the father of a large family, many of whom were older than L. E. L. Those who disbelieved the calumny refrained not from repeating it, until it became a general topic of conversation. Her own sex, fearful of censure, had

not courage to defend her, and this highly gifted and sensitive creature, without having committed a single error, found herself a victim to slander. More than one advantageous proposal of marriage was made to her; but no sooner was this known, than anonymous letters were sent to the persons who wished to wed her, filled with charges against her honour. Some of her suitors, wholly discrediting these calumnies, but thinking it due to her to refute them, instigated inquiries to trace them to the original source whence they came; not a single proof could be had of even the semblance of guilt, though a thousand were furnished of perfect innocence. Wounded and humiliated, poor L. E. L. refused to wed those who could, however worthy the motive, seem to doubt her honour, or instigate inquiry into her conduct; and from year to year dragged on a life of mortification and sorrow. Pride led her to conceal what she suffered, but those who best knew her were aware that for many months sleep could only be obtained by the aid of narcotics, and that violent spasms and frequent attacks of the nerves left her seldom free from acute suffering. The effort to force a gaiety she was far from feeling, increased her sufferings even to the last. The first use she made of the money produced by her writings was to buy an annuity for her grandmother; that grandmother whose acerbity of temper and wearying *exigence* had embittered her home. She then went to reside in Hans Place, with some elderly ladies, who kept a school, and here again calumny assailed her. Dr. Maginn, a married man, and father of grown daughters, was now named; though his habits, age, appearance, and attachment to his wife, ought to have precluded the possibility of attaching credence to so absurd a piece of scandal, poor L. E. L. was again attacked in a manner that nearly sent her to the grave. This last falsehood was invented a little more than four years ago, when some of those who disbelieved the other scandal affected to give credit to this, and stung the sensitive mind of poor L. E. L. almost to madness by their hypocritical conduct."

Driven to despair almost by this persecution, and panting for repose, an opportunity now presented itself of release. A gentleman called Maclean, who had an appointment at Cape Coast, was attracted by her, and after some months proposed for her. Lady Blessington relates the next portion of the episode:—

"Wrung to the quick by the slanders heaped on her, she accepted his offer; but he deemed it necessary to return to Cape Coast Castle for a year, before the nuptials could be solemnized. He returned at the expiration of that term, renewed his offer, and she, poor dear soul! informed all her friends—and me amongst the number—of her acceptance of it, and of her intention of soon leaving England with him; soon after this Mr. Maclean went to Scotland, and remained there many months without writing a single line to his betrothed. Her feelings under this treatment you can well imagine. Beset by inquiries from all her friends as to where Mr. Maclean was? when she was to be married? &c., &c.; all indicating a strong suspicion that he had heard the reports, and would appear no more. A serious illness assailed her, and reduced her to the brink of the grave. When her friend wrote and demanded an explanation from Mr. Maclean, he answered, that fearing the climate of Africa might prove fatal to her, he had abandoned the intention of marrying, and felt embarrassed at writing to say so.

"She, poor soul! mistook his hesitation and silence for generosity, and wrote

to him a letter fraught with affection; the ill-starred union was again proposed, but on condition that it should be kept a secret, even from the friends she was residing with. From the moment of his return from Scotland to that of their departure, he was moody, mysterious, and ill-humoured—continually sneering at literary ladies—speaking slightly of her works—and, in short, showing every symptom of a desire to disgust her. Sir — remonstrated with him on his extraordinary mode of proceeding; so did all her friends; but the die was cast. Her pride shrank from the notion of again having it said that another marriage was broken off; and she determined not to break with him. Mystery on mystery followed; no friend or relative of his—though an uncle and aunt were in London—sanctioned the marriage; nay, more, it is now known that two days previous to it, he, on being questioned by his uncle, denied positively the fact of his intention to be married.

“The marriage *was a secret one*, and not avowed until a very few days previous to their sailing for Africa; he refused to permit her own maid, who had long served her, to accompany her, and it was only at the eleventh hour that he could be induced to permit a strange servant to be her attendant. His conduct on board ship was cold and moody. This indifference continued at Cape Castle, and what was worse, discontent, ill-humour, and reproaches at her ignorance of house-keeping met her every day, until her nerves became so agitated that the sound of his voice made her tremble. She was required to do the work of a menial; her female servant was discharged, and was to sail the day that the hapless L. E. L. died.”

To one so bright, and fond of society and sympathy, this exatriation must have been terrible. On arriving at the gloomy Cape Coast Castle, of which her husband was a sort of governor, it was found that she was the only lady in the colony. Mr. or Captain Maclean assumed a severe mode of conduct, not to say discipline, and, as the poor indiscreet lady wrote home by way of complaint to her friends, he had said “that he will never cease correcting me till he has broken my spirit, and complains of my temper, which you know was never, even under heavy trials, bad.” Too much importance should not be attached to such speeches. Her husband was in wretched health, dyspeptic, with an affection of the liver, and thus not likely to be what is called compatible. The place itself, at that time, was a gloomy, wretched one, containing only a few European traders, with a number of half-castes. The Castle was a dismal building, and the acting Governor had no more than £500 a year. He delighted in mathematics, and was fond of expressing his contempt for literary matters. With such elements, things did not promise well. Still, it was but a short probation. The marriage took place on June 7, 1838, and by October 15 of the same year, within four months, the gifted L. E. L. had died by poison, accidentally taken. One Mr. Cruickshank, a local merchant, has given a very pleasing picture of the last days of this ill-fated lady.

He wrote, he said, “as one who enjoyed and keenly felt the

fascinations of her society, who only ten hours before her death had sat and listened with a rapt attention to her brilliant sallies of wit and feeling: "

"I sent in my name by the servant, and immediately afterwards Mrs. Maclean came to the hall and welcomed me. I was hurried away to his bed-room, Mrs. Maclean saying, as she tripped through the long gallery, 'You are a privileged person, Mr. Cruickshank, for I can assure you it is not every one that is admitted here.' I took a seat by the side of his bed, upon which Mrs. Maclean sat down, arranging the clothes about her husband in the most affectionate manner, and receiving ample compensation for her attentions by a very sweet and expressive smile of thankfulness.

"As the day drew near for my departure, she occupied herself more and more in writing to her friends in England. I agreed to dine and spend the evening of the 15th with the Governor and his lady, the day before the vessel sailed. At eleven o'clock I rose to leave. It was a fine and clear night, and she strolled into the gallery, where we walked for half an hour. Mr. Maclean joined us for a few minutes, but not liking the night air, in his weak state, he returned to the parlour. She was much struck with the beauty of the heavens in those latitudes at night, and said it was when looking at the moon and the stars that her thoughts oftenest reverted to home. She pleased herself with thinking that the eyes of some beloved friend might be turned in the same direction, and that she had thus established a medium of communication for all that her heart wished to express. 'But you must not,' she said, 'think me a foolish moon-struck lady. I sometimes think of these things oftener than I should, and your departure for England has called up a world of delightful associations. You will tell Mr. F——, however, that I am not tired yet. He told me I should return by the vessel that brought me out; but I knew he would be mistaken.' We joined the Governor in the parlour. I bade them good night, promising to call in the morning, to bid them adieu. I never saw her in life again."

Next day a hurried message came to him to go to the castle. She was dead. He was brought into a room where the doctor was trying to see if life had not fled. "I seized her hand and gazed upon her face. The expression was calm and meaningless. Her eyes were open, fixed." Poor L. E. L.!

Her maid was, it seems, leaving for England by a packet that was sailing that day. This had affected and agitated her much, as the desolate creature felt she would be left still more alone and helpless. The maid had come to her door in the morning, but could not open it. On doing so she found her mistress dead on the floor, with a phial in her hand, containing an extract of prussic acid, which she foolishly used, as nervous persons use chloral now. There could be no doubt from the evidence that she had accidentally poisoned herself by an overdose, from the wish to allay her agitation. But so vehemently did her friends in England take up the case, that it was said she had destroyed herself in despair at her treatment. Nothing

could be further from the truth. Mr. Maclean was an uncongenial man, but he was in no way concerned in this matter.

The night before her death, she wrote some letters. In one she says: "The castle is a very noble building, and all the rooms large and cool, while some would be pretty even in England." The room in which she is writing "is painted a deep blue, with some splendid engravings." "Mr. Maclean's library is fitted up with book-cases of African mahogany, and portraits of distinguished authors."

And she adds—"But I, however, never approach it without due preparation and humility, so crowded is it with scientific instruments, telescopes, &c., &c., none of which may be touched by hands profane."

In the letter just referred to, addressed to her "dearest Marie," she begins with eulogiums on the castle, "infinitely superior to all she ever dreamed of." The rooms are excellent. The building is fine; she does not suffer from heat. "Insects there are few or none, and," she adds, "I am in excellent health." But then follows the admission of the dreariness of her life—"The solitude, except an occasional dinner, is absolute. From seven in the morning till seven in the evening, when we dine, I never see Mr. Maclean, and rarely anyone else." But then she informs her friend, she was welcomed to Cape Coast by a series of dinners, which she is glad are over, "for it is very awkward to be the only lady; still, the great kindness," she observes, "with which I have been treated, and the very pleasant manners of many of the gentlemen, have made me feel it as little as possible."

"Mr. Maclean," wrote Lady Blessington, "admits that indisposition and mental annoyance must have rendered him far from being a kind or agreeable companion to poor Letitia; but adds, that had she lived a little longer, she would have found him very different, as he was—when not ill and tormented by various circumstances, which he does not explain—easy and good-tempered to a fault. He says, that never was there so kind or so faultless a being on earth as that poor, poor girl, as he calls her, and that he never knew her value until he had lost her. In fact, his letter seemed an answer to charges preferred against him by the departed, and, what is strange, the packet that brought the fatal news, brought no letter of recent date for her —, though she never missed an opportunity, and they occur rarely, of writing to him. Her letters, all of which have breathed the fondest affection for him, admit that she had little hope of happiness from her stern, cold, and morose husband."

By a most extraordinary coincidence, Dr. Madden, well known for his curious travels with Lady Hester Stanhope, who was also second in the preliminaries of a duel between the late Charles Mathews and Count D'Orsay, a man of great knowledge, industry, and literary gifts, as his friends know, was despatched on a Government inquiry to Cape

Coast. He had been much interested, like all her friends, in poor L. E. L., and determined to prosecute his inquiries on the spot, for the rancour of partisanship had gone so far as to insinuate that her husband was responsible for her death in more direct fashion than mere harshness. This visit was in 1841. Dr. Madden noted the gloomy desolation of the castle—the large courtyard where L. E. L. was, oddly enough, buried, over whose grave the soldiers were drilled, and in the wall of which a memorial tablet was inserted shortly after his arrival. He frankly told him that he would like to inquire into the matter fully, and was met in the same spirit. Dr. Madden was enabled to vindicate him completely. However, the Commissioner was not very *bien vu* by the natives, and being presently seized with the fever of the place, conceived they had attempted to poison him: on which he had himself hurriedly removed from the castle.

Such was the strange story of the heroine L. E. L. She was sung in verses by Landor and others: she was held to be a victim: her memory is still cherished by those who recall her. Captain Maclean died ten years later, in 1848, and was interred in the courtyard beside his wife. He was a poor man; but had he lived three months longer he would have inherited a large fortune from Sir John Maclean, who bequeathed it to him.

PERCY FITZGERALD.

SCIENCE NOTES.

A PERSECUTED FELLOW-CREATURE.

A CRUEL case of injured innocence is presented by the treatment which that very pretty little animal the "*slow-worm*" suffers in England. Even educated people suppose it to be poisonous, and our rustics are most positive and unanimous on the subject.

My son bought one at that popular zoological emporium, Seven Dials. On bringing it home he encountered a curious example of the malignity and dishonesty engendered by popular delusions. He imprudently showed it clinging round his finger to his fellow-passengers, and had some difficulty in defending it against their murderous attacks. They all proclaimed it horribly poisonous, and one asserted that he knew a man who was killed by the "sting" of the reptile.

Being singularly defenceless, I wonder that it has not been extirpated. It is becoming more and more rare, and with our extending cultivation and increasing population of malignant persecutors, it must ere long cease to exist in this country, unless some champion comes forward to defend it.

Having studied its habits, and become attached to this useful and amiable little creature, I hereby undertake that office, and challenge all comers who dare to assert that it has any vices whatever.

The popular notions concerning its "sting" are simply ridiculous, the supposed sting being a soft and delicate little black forked tongue. The only animal that can sting with its *tongue* is the human slanderer. Venomous snakes kill with formidable elongated tubular teeth, not with stings. The slow-worm has little teeth like pin-points, not long enough to penetrate beyond the human cuticle, even if it should bite.

Even eminent naturalists have libelled them. The name, *anguis fragilis*, bestowed on them by Cuvier, is based on their supposed *brittleness*. I find them less brittle than the common green lizard,

specimens of which I have kept alive and now have. One of these lost half his tail by mere handling.

Bell, in his standard work on "British Reptiles," describes them as animals that cannot be kept alive in confinement without great difficulty. I find no such difficulty. I now have two which have lived in my study since July 1881, are flourishing and happy, and have grown to more than double their last year's dimensions. At first they were wild and timid, darted away when I approached them; now they follow my hand and crawl over it voluntarily, licking it affectionately as they proceed. I admit that "cupboard love" may be an element in this affection, but where shall we find it otherwise?

They are singularly free from the worst objections to ordinary animal pets. They are infested with no parasites. They do not perspire. Their delicate coat of mail is immaculate; as clean and bright and dry as polished silver. Even their tongue is not perceptibly moist, and they are quite free from any animal odour.

Their common names, "*blind-worm*," "*slow-worm*," "*long cripple*," "*Blind Schleiche*" of the Germans, *Cecilia* of the Latins, and *Kophias* (or deaf and blind beast) of the Greeks, are all libellous.

They are not blind, but have sharp, clear eyes, and corresponding vision. When my pets are basking, and I approach them, they see me through the glass side of the vivarium, and are on the alert, following my movements either by turn of the head or roll of the eye. They evidently have double vision, as they usually turn one side of the head towards me, and watch with one eye rather knowingly and winkishly. They are equally attentive to slugs and worms.

They are not slow in their movements, though less rapid than snakes and some lizards; their movements are so eminently graceful that the Cornish name "*long cripple*" is a gratuitous insult.

As for the deafness, which some naturalists join the Greeks in affirming; this is disproved by my experience, as they respond to the jingle of the glass when I lift the cover of the vivarium. I admit that they have not "an ear for music," as they pay no particular attention to me when I whistle to them, however melodiously. The common green lizard is an amateur of music, as I have often-times proved in the course of my walks through Italy, where I have collected an audience on a sunny stone wall by whistling, and have even captured them with a slip-knot of grass when thus fascinated.

I have no doubt that Rymer Jones is quite right in describing the

slow-worms as forming a very remarkable connecting link between serpents and saurians. Though snake-like in form and without any visible legs, "the rudiments of these limbs may be detected beneath the skin; more especially those of the hinder extremity, wherein a little *pelvis* and *femur* may be distinctly recognised, while a minute *sternum*, *clavicle*, and *scapula* indicate the first appearance of thoracic legs."

I have not repeated these dissections, but my observations of the habits of these animals justify their usual classification with lizards rather than with snakes, in spite of their outward shape. When a boy, I was much addicted to snakes; I commonly carried one in my jacket pocket, especially when visiting the Zoological Gardens, where the tremendous excitement produced by exhibiting it to the monkeys supplied me with unflagging delight. But I never could feed them satisfactorily. After about three months of fasting they died, usually after changing their skins, when they became fierce, hissed, and tried to bite my fingers. Their natural habit is to gorge horribly, and then to fast for an astonishing length of time.

Not so with my little slow-worms. They feed respectably, steadily, and regularly; look for a worm or a slug every morning, excepting during the period of skin-casting, when they remain buried and quiescent for several days, and I carefully abstain from disturbing them. White slugs are their favourite morsels; they will swallow two or three in succession, each larger than the head of the swallower.

They are peaceful creatures, only quarrelling when one has swallowed the head and the other the tail of the same worm or slug, which gradually descends their respective throats until their noses meet. Then comes the tug of war. If a worm, it breaks, and each swallows his own half. But slugs can bear what engineers describe as a "high tensile strain," and therefore, in their case, the whole becomes the share of the victor, and the vanquished slips away, cleans his mouth and sulks.

Our murderous prejudice against this interesting creature is not only unjust to its victim, but damaging to ourselves. If the slow-worm were treated with the respect and attention to which he is entitled, he would be one of our best agricultural friends, especially in gardens and greenhouses. Slugs are about the worst of all the gardener's enemies, and I find that a single slow-worm will eat a dozen or two of these every week during the season of their ravages. Besides this, he helps the drainage of the soil by his burrowing.

As the domestication is said to be so difficult, I will describe my

arrangements. I have an old aquarium tank made of wood, lined with slate, with glass front, and a movable glass top in two pieces. It is two feet long, one foot high, and one foot wide. It is divided by a framed piece of wire netting into two compartments; the larger of these, occupying about three-fourths of the whole space, has a layer of charcoal fragments at the bottom, about one inch deep, and above this about six inches of moss, with its roots and mould attached. The animals burrow in this. The smaller compartment is left empty, and by drainage forms a pool, showing how much water is below all, and, besides this, serving as a bath for frogs and newts.

NEW ZEALAND COAL-SEAMS.

THE insular and general geographical character and surroundings of New Zealand have led many thoughtful people to regard it as the future Britain of the Southern hemisphere. Recent developments of New Zealand coal-mining are quite in harmony with this idea. According to accounts that appear reliable, there has been lately opened, near the town of Westport, in the Middle Island, the richest coal-field at present known to exist in any part of the world. 53 feet 6 inches is said to be the thickness of one seam, nearly double that of our famous 10-yard seam in South Staffordshire which has converted its district into "The Black Country." Other seams are described ranging from 6 feet up to this.

We are further told that "some of these seams are exposed on the faces of cliffs," and can therefore be worked by simple tunnelling. The account that I have read in *Iron* of October 6 does not state the "dip" of these exposed seams. This is a very important practical item. If they dip away from the exposed face, but little progress can be made in the way of the open working that is hopefully described, as the workings could not proceed far without being stopped by accumulation of water, demanding adits or other devices for drainage that may be as costly as sinking a pit in the usual way "on the deep" of the seam, and then working upwards towards the outcrop. This is what we do in our British coal-seams; the water trickles down all the roads towards the pit which is sunk below their lowest level to form the "sumph" or well from which the whole drainage of the mine may be pumped.

But even in this case the New Zealand seams would have a great advantage; for supposing the pit to be thus sunk on the deep, and at such a distance from the face of the cliff that the bottom of the seam should not be lower than the base of the cliff, no pumps would

be required, only an adit or small tunnel from the foot of the cliff to the sump of the pit; and all the water would flow away by gravitation. It is stated that these cliff-face outcrops of coal are from 800 to 3,000 feet above sea-level.

By driving the first roads from the pit right through to the cliff-face as we drive to the working boundary in long-wall working, the coal could be shipped directly from this face; the pit shaft itself would be merely a sump for drainage, and the second pit usually demanded for ventilation would not be absolutely necessary.

If, on the other hand, these seams dip towards the cliff, their working is ridiculously easy; the cost of the coal (irrespective of royalty) would be but a few pence per ton "f. o. b." (free on board); for some of these cliffs are described as sea-cliffs from which the coal may be loaded directly by gravitation; other outcrops are on mountain sides sloping to the sea where the quarryman's device is available: an endless rope to one side of which is attached the loaded truck, which in descending pulls up one or more empties attached to the other half of the rope which, by the aid of pulley-wheels, runs freely in the reverse direction.

After making full allowance for possible exaggeration, there seems little reason to doubt that New Zealand can supply, if necessary, the bulk of the Australian demand for coal. Besides this, these islands, like our own, have a climate that interferes with no kind of manufacturing industry. Furnace work is possible there in the summer, and men's fingers are not blistered by handling masses of metal in the winter, as in the United States and Inland Europe.

THE EXTENSION OF THE CORONA.

I HAVE lately been reading the handsome quarto volume of reports of the solar eclipse of July 29, 1878, which volume, luxuriously illustrated, has been gratuitously forwarded to myself and to many others in this country from the United States Naval Observatory. One of the most noteworthy of these reports is that of Professor S. P. Langley, who, with his brother, Professor J. W. Langley of Michigan, Professor Cleveland Abbe, and others, climbed to the summit of Pike's Peak on the Colorado Mountains, and after heroic struggles and serious suffering from exposure and mountain sickness, succeeded in building the necessary stone pillars and mounting their instruments at an elevation of 14,000 feet above sea level. Professor S. P. Langley spent 10 days there, his brother 8 days, and Professor Abbe 5 days, but the latter was carried down on a litter to a lower

level the day before the eclipse, as a physician of the party pronounced his life to be endangered by another day's struggle with the difficulty of breathing, febrile disturbance, and accelerated heart-action, due to the rarefied air.

The results of observing the phenomena from a position which so largely eliminated the vapours, dust-haze, and other veiling hindrances of the lower atmosphere fully justified the efforts made, and compensated for the hardships endured by the brave little band of truth-seekers.

The most important result was an observation of the extension of the solar corona far exceeding anything previously seen by *human eyes*. (My reason for these italics will presently appear.)

Instead of the general radiance hitherto described as extending to a distance varying from one to three-fourths of the solar diameter beyond the sun, Professor Langley observed a marvellous extension of the luminous radiance on each side of the sun, and at an angle of about 45° with the vertical.

These wings extended farther and farther as his eye (previously fatigued) became more sensitive in the general darkness; that on the left side being the most remarkable.

Describing this, of which he publishes a drawing, he says: "The central part of the wing on the left near the sun was brighter than the edges, which was so diffuse as to make the determination of its exact boundary difficult. It appeared to me, however, to be considerably more than a solar diameter in width, and it was now visible to fully twelve diameters in length. It was not so absolutely structureless as the zodiacal light perhaps, and it appeared longer in proportion to its breadth than that; otherwise I should compare it with the zodiacal light with more confidence than to anything else."

In another paragraph he adds: "I had now much reason to regret having exposed my eye, for it was evident that I was witnessing a real phenomenon heretofore undescribed; and yet that while the eye was only growing into the proper condition of seeing its real extent, I must turn away. I think I must have gazed upon this extension for over one-half of the time at my command, looking down upon the white paper to sketch its outline and gazing at it again. It did not momentarily disappear as a nebula does at night when the sketcher turns his eye from the feebly illumined paper. It remained, I repeat, persistently visible. The twelve diameters, through which I traced it under these circumstances, I feel great confidence in saying, *were but a portion of its extent.*"

The italics in the above are the Professor's. Twelve solar diameters amount to more than ten millions of miles.

When writing "The Fuel of the Sun" 15 years ago, the forces which I conceived to be the cause of the solar prominences demanded theoretically an upheaval of the dense metallic vapours of the interior of the sun, their condensation as metallic hail, and ejection beyond the limits of the flaming prominences to distances comparable to that by which the range of the shot from a gun exceeds that of the flash of the powder; and that such ejection must produce a radiance similar to that observed as the corona. I even endeavoured to show that the then known limits of the corona are not sufficient for the theory, and that the zodiacal light, the meteors beyond, and even the asteroids are the materials thus ejected.

The idea of the corona being thus produced by solar ejection is no longer regarded as extravagant; it is becoming pretty generally accepted; and the idea of the continuity of the corona and the zodiacal light is gradually developing towards acceptance. Full acceptance demands, however, more evidence than the purely theoretical arguments I was able to advance, and therefore I regard this observation of Professor Langley's as specially interesting; for the zodiacal light has been seen on the horizon when the sun was not more than twelve diameters below it, and therefore the continuity is visibly demonstrated, as the direction of the greatest coronal extension observed by Langley corresponds remarkably with that of the zodiacal light, and the other observers of this eclipse independently describe a remarkable extension in exactly the same direction, though not of the same magnitude. The difference, however, is not greater than is fairly attributable to the position of vantage obtained by Professor Langley.

CATS AND THE CORONA.

THE facts above stated have suggested an odd reflection, but one that I think is worthy of record and further consideration.

If I am right respecting the continuity of the corona and the zodiacal light, there is about the sun a radiance extending so far as to cover a very large portion of the heavens during an eclipse—a radiance which must be visible to eyes that are provided with an iris sufficiently expansive to open the windows of vision much wider than ours, and thereby to see faintly illuminated objects invisible to us.

Now, it is a fact that certain animals merely regard a solar eclipse as an approach of night, and go to rest accordingly; others display considerable alarm. Arago, describing the total eclipse of July 8, 1842, as he saw it at Perpignan, says, "Oxen formed into a circle with their horns thrust forward as if to repel an enemy. Bats and

owls appeared, sheep lay down as if for the night, and horses in the fields were in terror."

I cannot suppose that a mere twilight should produce this terror. Some of our London fogs arrive in the daytime as suddenly as the darkening of an eclipse, and their gloom is nearly, if not quite, as great. But the thousands of horses in London take no heed of it, and all our other experience of these animals indicates that a mere negation of light is not at all alarming to them.

It must be something positive, something also unusual and startling, that can thus frighten them, as when they see for the first time a strange object on a road.

All who have driven horses in the country on dark nights must have observed the superiority of equine to human vision in such darkness. Their power of penetrating gloom appears to me to be somewhere midway between that of men and cats.

What I am now about to suggest is quite serious, viz. that in organising another eclipse expedition for the observation of the corona a few domestic cats should be included in the staff of observers. Let them become familiar with the locality before the day of the eclipse, and when it commences let them be kept indoors in a darkened room, and then turned out during totality and their proceedings carefully observed.

If my supposition is correct they will see the sky nearly filled with a ghostly radiance, starting from a dark spot, and will indicate this by staring upwards and around in terror, unable to select a direction in which to fly for escape.

As human beings differ greatly in the expansibility of the iris and sensibility of the retina, experiments might be made with the view of selecting abnormally sensitive specimens—such as albinos for example¹—and using their vision for the determination of the limits of the corona.

The telescope does not help, for two reasons—first, that its glasses absorb some of the faint light; and second, because with a high magnifying power the field only includes a small bit of corona without the possibility of a general view and comparison with the darker sky around.

The records of observations of the same eclipse by different observers, especially the drawings of different naked-eye observers, prove that these differences of vision are most remarkably displayed

¹ Wafer, speaking of the Albinos of Darien, describes their intolerance of sunlight, and adds that, "notwithstanding their being thus sluggish and dull in the day-time, yet when moonshiny nights come they are all life and activity, running about and into the woods, skipping about like wild bucks; and running as fast by moonlight, even in the gloom and shade of the woods, as the other Indians by day." Hence they are called moon-eyed.

in tracing the coronal limits. All generally agree as to the *direction* of its greatest extension, but differ up to cent. per cent. as to its magnitude.

THE PATH OF THE COMET.

THE question of the identity of the present comet with that of 1843 and 1880 is still questioned, and the later observations are stated to decidedly contradict the supposition.

I have been surprised to find that the observers who record the small deviation of the present orbit from that of the comets of the above dates say nothing, and apparently allow nothing, for the positively disturbing influence of the sun during its remarkably close perihelion passage; but on further reflection I think I perceive *why* they have lost sight of this possibility.

It is because they regard the sun merely as a lump of something hot, surrounded by a mere atmospheric envelope. The retardation due to a brushing of the atmospheric fringe of such a body would simply contract the orbit in length, and bulge it a little in width.

But the sun is no such passive orb. He is an eternally bursting bombshell, projecting gases and solids in mighty explosive jets that extend for millions and millions of miles. (*See* previous Note on "The Extension of the Corona.")

The diameter of some of these jets is equal to that of the nucleus of the comet, and it is scarcely possible that it could pass so near to the sun as it did without encountering not merely a passive resistance, but furious blasts, that may have not merely altered the proportions of its elliptical orbit, but have produced positive displacements quite sufficient to account for the discrepancies that have been observed between its orbit and those of 1843 and 1880.

If so, we may yet enjoy the sensation of witnessing another and another brush with the sun, and the grand finale of bodily absorption—I was about to write total absorption, but correct myself—as the nucleus of the comet may plunge into the sun, and its outer nebulous matter escape and form a meteoric trail, following a path similar to that last travelled by the defunct nucleus.

While on this subject I should make an explanatory addendum to my last month's Notes on the Comet. The *apparent* plunge into the limb of the sun described in the first telegrams from the Cape are now, in the detailed accounts, explained as a passage close to the limb, but also between the sun and the observer, in such wise *that the apparent* plunge was a passage over the edge portion of the *sun's face*, causing the photosphere to blot out the visibility of the comet.

W. MATTHEW WILLIAMS.

TABLE TALK.

EGYPTIAN DONKEYS.

A CORRESPONDENT applies to me for information regarding the treatment of donkeys in Egypt, his sympathies having very justly been awakened by passages in the writings of various authors. He says, "According to some modern writers the animal is treated in a shocking manner. A recent writer in the *Animal World* says, 'It is kept with "fearful raws" under the saddle back-strap, raws into which the donkey boys not only strike, but seem to delight to stick their tamarind sticks.' A lady writing to the *Animal World* says some of the 'raw places are actually *alive*, and the donkey is often beaten about the legs so cruelly as to almost drop with agony.' The Rev. H. Jones, M.A., in an article in the *Leisure Hour*, says, 'However gaily caparisoned, a "raw" is considered an inevitable part of the poor creature's equipment; it is cut out neatly on his loins.'

I wrote to Miss Gordon Cumming, and she has kindly sent me the following note:—

I suspect that in this matter, as in most others, good and evil are inextricably blended. A merciful man will be merciful to his beast, and a cruel one will be brutal. Most of the Egyptian donkeys are in charge of boys—a race not always tender to animals, even in Britain, and these poor little Arabs, who have never known gentleness or kindness in their own wretched homes, are not likely to be patterns of this virtue in their treatment of the dumb creatures intrusted to them.

That some are kindly treated I have no doubt, and, though the subject was not one to which I gave much heed, my own impression of Egyptian donkeys was, that they seemed quite a superior race to those of Britain, and bore their burdens bravely, and apparently without effort. Both in Alexandria and in Cairo my attention was frequently arrested by groups which might have afforded studies for an artist, to illustrate "The Flight into Egypt"—a veiled Oriental woman and her child, riding a most gentle, handsome ass, while the

stately father walked alongside, perhaps carrying a palm-branch to keep off the flies.

Referring to my Egyptian diary, I find the following incidental notice of a ride to the Pyramids. "Our donkeys were already saddled, English side-saddles had been provided for us. The donkeys of Egypt are charming little beasts, with very easy motion, who canter along as if they thoroughly enjoyed the fun, *without a suggestion of a stick*; only a little vocal encouragement from their small Arab owners, who kept pace with us the whole way" (that is to say, for several miles).

Later I find the remark: "We were cantering cheerily along on our brave little donkeys." I certainly should not have gone out of my way to make these comments, had any cruelty come under our notice. My niece tells me that her donkey carried her from the Quarry Caves to Cairo, a distance of eleven miles, in an hour and a quarter, without any but vocal encouragement, and seemed quite fresh at the end of the ride.

On the other hand, on referring to a friend long resident in the country, she replies, "I am afraid I must agree in a good deal that is stated in your correspondent's inclosures regarding the treatment of that most useful animal, the Egyptian donkey.

"During our eleven years' sojourn in Egypt we saw ghastly sights among the donkeys and horses. Many are barbarously treated, and it used certainly to be an exception to find one without a raw, which the imp who drove him seemed to delight in keeping up.

"With regard to their strength being overtaxed in carrying a lady on a side-saddle, I consider that these donkeys, although small, are strong, and fully capable of bearing their burdens."

I fear this testimony goes to prove that there is abundant room in Egypt for a Society for the Prevention of Cruelty to Animals; but it would need to begin its reformation at the root of the matter, by checking official brutality to bipeds!

In Tunis and Algeria the case seems worse than in Egypt, and a friend, writing thence, can scarcely contain her indignation at "the perfectly brutal way in which the meek little donkeys, starveling ponies and mules, are whacked and over-loaded." It is a subject which so constantly forces itself on her attention that she recurs to it again and again, and concludes that the Arabs are totally insensible to the suffering they cause their poor beasts of burden. In short, she cordially indorses the opinion of a French writer, who characterises Northern Africa as "*L'Enfer des Bourriquets*" (The Hell of the Ass's Colt).

CHRISTMAS ART.

MESSRS. RAPHAEL TUCK & SONS send me some specimens of the Christmas Cards published by them this year. I need only say that from an artistic point of view they are very good indeed; while, at the same time, they are striking proofs of the perfection which has now been obtained in chromo-lithography.—Messrs. Hildesheimer & Faulkner also have rejoiced my eyes by specimens of some of their very beautiful cards, all of which show great feeling, skill, and originality.

IMPROVEMENTS IN CABS.

THE Londoner is apt to congratulate himself on his perfect command of all the social luxuries which civilised man can possess; but there is one item in the social "bill of fare" which he has yet to acquire in all its perfection, and that is a comfortable cab. No one, I think, can doubt that the two-wheeled vehicle of the late Mr. Hansom's invention is both useful and in many ways well adapted for quick transit through busy streets. But anyone who rides in a hansom must have been struck by the absolute want of any means of quickly communicating with the Jehu. The only available plan of shouting upwards through the trapdoor is apt to endanger one's cervical vertebræ; and, if the driver happens to be steering his way through the mazes of traffic, your commands have little chance of being heard or attended to. Then there remains the method of directing his movements by waving an umbrella or stick before his eyes, but the signal code is in this respect utterly deficient. He stops when you only mean him to take a turning, and he takes a turning when you wish to alight. Why can't we have a speaking-tube fitted up in each hansom, through which we could convey easily and effectively our commands? Or why should there not be a little bell (*à la* the electric gong in shape) securely fixed in a flat box on the roof, with a plain code beside the occupant of the cab, such as "one ring, stop;" "two rings, turn to the right;" "three, to the left;" "four, turn back;" and so on? I am sincerely convinced that in the prospective improvement of the hansom there is a great store of comfort for humanity. The details mentioned are little things, no doubt; but then, life's comfort is really made up of little things.

Another feature of cab-improvement will consist in the abolition or modification of the "growler." If I go north, say to Edinburgh, I find in each four-wheeled cab a neat brougham or a landau. X X

am a tourist, and am travelling with three friends, and wish for an open carriage wherein we may at our ease inspect Edinburgh, I do not require to resort, as in London, to the expensive private landau with its coachman and all the "extras." My hotel porter in Edinburgh simply calls a cab from the nearest stand. The cab is a landau: the cabman opens it if shut; and in ten minutes or less the party of four is whirled off in a comfortable open vehicle, hired at the rate of two shillings per hour, with a *pourboire* for the driver thrown in. We cannot do this in London, and one is tempted to ask "why not?" The "growler" is all very well when there is luggage to be carried—cabs elsewhere carry quite as heavy a load—but we ask, why cannot we have opening cabs as the provinces possess them? and, alas! echo as yet answers "why?"

SYLVANUS URBAN.

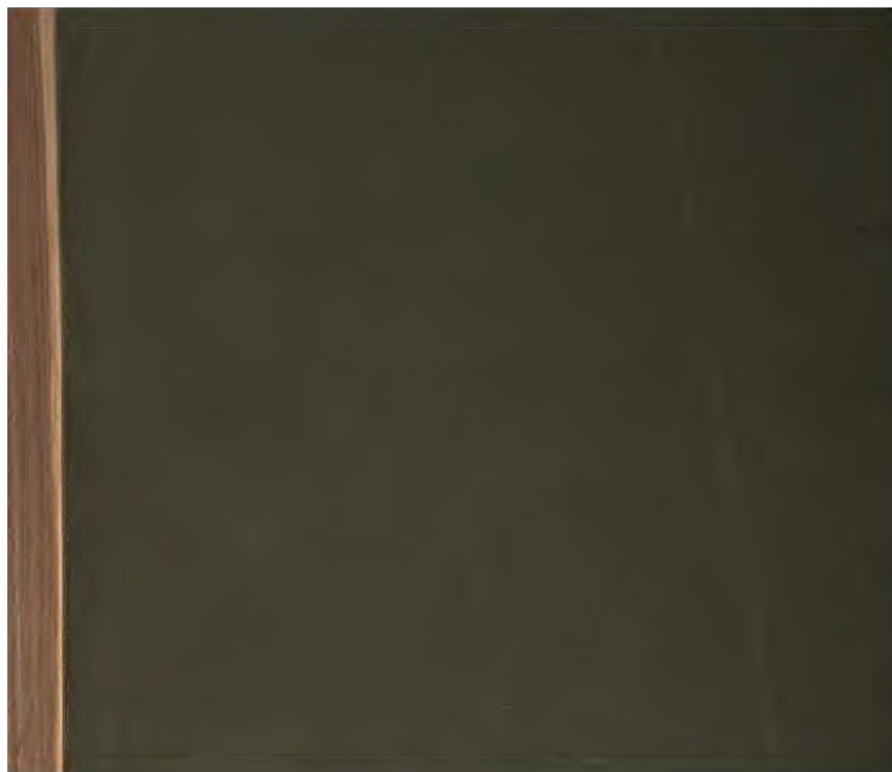
DECEASED.—**PIGOTT-GREY.**—November 6, 1882, in the city of Dublin, Mrs. Charlotte Grey, the fourth and last surviving daughter of the late John Pigott, Esq., and Mary, third daughter of Joseph Vickers, Esq., of St. Catherine's, Dublin; sister of the late Sir William Pigott, Bart. (an intimate and trusted friend of the late Earl of Carlisle when Chief Secretary of Ireland, and of the late Marquis Wellesley, by whom he was privately engaged in inquiring into the political intrigues of the Irish court during his Excellency's Viceroyalty), of Dellbrook and Tencurry, co. Dublin; and granddaughter of John Pigott, Esq., of Stradbally, Queen's County. She was born on July 21, 1805, and married on January 19, 1837, to James H. Grey, Esq., M. K. T., and was during the whole period of her life a dutiful daughter, a devoted wife, an affectionate mother, and a sincere friend.

The direct descent of this family now devolves upon her nephew, John Vickers Pigott, who at present resides in the United States; eldest son of the late John Pigott, Esq., of Brooklyn, and Elizabeth, sister of the Rev. Dr. Maguire, of St. Olave's, London.



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